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ABSTRACT

This report presents the findings of an evaluation of the operation of the Higher Education Summer Schools scheme in England, part of the Excellence in Cities initiative focusing on year 11 and 12 students. Data come from a study of the operation of the scheme in a selected sample of 16 higher education institutions through interviews of personnel and students and questionnaires completed by 779 students from a further 19 higher education institutions. The specific objective of the summer schools program is to encourage the participation of students with high ability and good achievement, who might not otherwise consider higher education, to apply to colleges or to consider a wider range of institutions and subjects. Most of the summer schools were held in July to avoid conflict with the national examinations schedule. Courses included a combination of components, including degree-type teaching approaches and career awareness sessions. Summer schools provided a wide range of subjects. Staff perceived students to be of high ability, although there were some concerns that the students participating were not all from the targeted group. Students responded favorably to the program, although some thought that the days were too long or the programs too intensive. Student questionnaire responses showed that students increased their appreciation of the benefits of higher education, and that the program has a greater impact on year 11 than on year 12 students. Recommendations are made for the improvement of the program. Appendixes list the institutions studied in both "strands" of the evaluation. (SLD)

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ED 450 653

February 01/04 Report

Higher education summer schools

Evaluation of the scheme in 2000

R. Kier

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Higher education summer schools

Evaluation of the scheme in 2000

Keith Mason and David Pye
National Foundation for Educational Research (NFER)

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Higher Education Summer Schools: Evaluation of the Scheme in 2000

Executive Summary

Introduction

1. The Higher Education (HE) Summer Schools scheme in 2000, which is part of the Excellence in Cities (EiC) initiative, focused on Year 11 and 12 students. The aims of the scheme are to enable the most able students to achieve their full potential and to widen participation in higher education by under-represented social groups. The specific objectives are to encourage students who are judged to have high ability and expected to achieve good A-level results, but whose family and educational background is such that they might not consider higher education, to apply to a higher education institution or to consider a wider range of institutions and/or subjects.

2. The first Summer Schools were held in 54 higher education institutions (HEIs) in 2000 with funding of £4 million from the DfEE. The scheme encompassed a total of 25 local education authorities (LEAs). HEIs in EiC areas and HEIs with demanding entry qualifications participated. The scheme is administered by the Higher Education Funding Council for England (HEFCE).

3. HEFCE commissioned the National Foundation for Educational Research (NFER) to evaluate the administration of the Summer Schools and their operation, including the impact made on participating students. This report describes findings concerning the operation of the scheme in a selected sample of 16 HEIs, and a questionnaire survey of students in a further 19 HEIs. The research described in this report was carried out through in-depth interviews of key personnel and participating students, and through analyses of pre- and post-course questionnaires used with a sample of students.

Summer School Programmes

4. Summer Schools made wide use of both HEI premises and off-campus sites in their provision. It was apparent that Summer School staff had addressed risk issues for students of this age (i.e. 15- to 17-year-olds) working at these sites.

5. Most Summer Schools were held in July. There were problems with student attendance at those held in June because of clashes with the GCSE examinations timetable. The majority of courses had a five-day academic programme, though many brought students together the day before for 'ice-breaking' activities. Summer Schools operated very intensive timetables. Typically, courses had around seven hours of academic sessions each day, and for residential Summer Schools there was a full programme of social events each evening. Generally, students found academic sessions useful and enjoyable, but found the days long and tiring. Some resented the lack of free time.

6. Courses included a combination of the components set out in the guidance issued by HEFCE to HEIs in September 1999. These components were: degree-type teaching/learning approaches; group work; reinforcement of generic skills; study technique work; graduate employment and employability-related sessions; HE and career aspirations sessions; and involvement of the HEI's own students.

7. A wide range of courses was provided by the Summer Schools within the broad areas of arts/humanities, science and social sciences. A few HEIs provided 'integrated courses', which cut across different curriculum areas. There were a few specialist Summer Schools providing courses in music or dance, for example. The subject focus of courses was well received by most students. However, a small minority were disappointed to be on courses that did not match their interests or expectations.

8. Graduate employment and employability-related sessions usually occupied between half and one and a half days of the programme. Sessions included those delivered by the HEI's careers service, visits to employers, talks from employment representatives and recent graduates, and business simulations. A variety of industry, commerce and public service employers were involved. There were mixed feelings expressed by Summer School leaders and students about the success of these sessions, with a sizeable

minority of Summer Schools repeating what the students already knew. Successes were particularly evident where recent graduates spoke to groups of students about their backgrounds, higher education courses and work experiences.

9. Most Summer Schools held a one-to-one session for each student with a member of the HEI teaching staff to discuss the student's higher education and career aspirations. Students that benefited most from these sessions were ones who were unclear about the potential courses available for careers they were considering and those concerned that their choice of A-level subjects had restricted their career possibilities.

10. Teaching and learning styles on courses generally favoured active modes of student involvement, with many sessions entailing group work. Typically, the number of lectures provided was quite low. On the whole, lectures were not well received by students. For many Summer Schools, group work leading to a final presentation – or performance in the case of a music or dance focus – gave the course a specific goal that proved motivating for students and concluded the Summer School on a high note.

11. Social/recreational activities across Summer Schools were held both at the institution and at off-campus locations. At the institutions, there were organised sports, barbecues, discos, quizzes and competitions. Many activities were organised and run by student mentors. Off-campus events included outings to theatres, cinemas and bowling alleys, and sessions at adventure sports centres. Such activities added greatly to students' enjoyment of courses and helped them form new friendships.

12. Most Summer Schools used end-of-course student questionnaires to monitor and evaluate their provision. Other methods used in this respect included student daily logbooks, target setting by students, and end-of-course discussion groups with students and staff. Summer School staff regarded student presentations on the final day as one means by which success could be judged. A few Summer Schools followed CREST Awards projects. These projects had stated criteria within an overall student profile, so indicating the level of success achieved.

Evaluation reports were written by most Summer Schools, occasionally with input from a range of staff, for use by the institution and as feedback to participating LEAs and schools.

13. Each Summer School was awarded a total grant of £800 for each residential place and £550 for each non-residential place. Staffing costs usually accounted for the largest proportion of the grant, though there were considerable variations regarding whether staff were paid and how much. A substantial amount of the staffing budget for most courses was spent on payments to student mentors and external providers. Residential Summer Schools naturally spent large amounts on accommodation, meals and night-time supervision, while both residential and non-residential Summer Schools had substantial expenditure on student travel costs. There was only a minor amount of unexpected expenditure.

Staffing

14. Each Summer School had a leader (sometimes more than one) supported by a team that included members of HEI staff, student mentors and other support staff. Typically, the Summer School leader had overall responsibility for administration, but shared responsibility with other staff for ensuring that courses ran as planned. In addition, there were external providers, usually for graduate employment and employability-related sessions.

15. Summer School leaders were approached for the position by HEIs because they had experience in running similar schemes or it was seen as part of their general job remit. Leaders approached specific departments for their support, and generally received a positive response. In turn, departments asked teaching staff to volunteer activity. Thus, many staff had the opportunity to be involved, but one negative effect was that some resulting courses lacked coherence. The recruitment of student mentors, usually final year undergraduates or those who had just completed PGCE courses, was rigorous, often involving an interview as part of a selection procedure.

16. Summer School leaders were not members of the teaching staff but were drawn from academic-related services, such as the Admissions Office.

Their knowledge of institutional systems and structures was invaluable in developing courses. Summer School leaders' duties included: welcoming students onto courses; observing course activity for monitoring purposes; organising and contributing to end-of-course events; ensuring the effective operation of the student mentor system; dealing with domestic arrangements and writing evaluation reports. The financial remuneration received by leaders varied widely, depending on whether they were full-time employees and the extent to which this responsibility was viewed as part of their job description.

17. HEI teaching staff were the key providers of courses, delivering a combination of lectures, tutorials, workshops and associated activity. Some teaching staff had a coordinating role for their department's involvement and liaison with other departments. Some teaching staff provided only a small input into courses, adapting material they had used with undergraduates. The payment of teaching staff varied, with some receiving no payment but their department receiving part of the grant.

18. Some courses employed academic-related staff, such as postgraduate students. This was usually in cases where specific skills or knowledge were required, such as in science courses or for specialist courses in music.

19. Student mentors' involvement was more 'pastoral' than academic. They supported students during sessions and activities, proving to be good role models. Student mentors were also able to feed back information to providers regarding how work was developing and students' reactions to sessions. They received either a one-off fee or a rate of pay of around £6 per hour. A few residential Summer Schools also employed teachers as night-time supervisors, which had a positive effect on student behaviour.

20. A range of other providers also contributed. One key in-house provider was the careers service, with staff giving advice to students and utilising existing links with local employers to provide input. Other support came from the Student Union, the library and IT services. Paid external providers at some Summer Schools included a careers advice company and professional musicians.

21. Training and induction occurred at all Summer Schools, especially so for student mentors. A few leaders received training/induction, as did night-time supervisors employed on some residential courses. Training/induction was less comprehensive for HEI teaching staff. This would have been helpful for some teaching staff with regard to pitching course material at a more appropriate level.

Outcomes

22. The take-up of places at Summer Schools ranged from 50 to 100 per cent. Courses were held well into the holiday period, and those that had recruited students from areas a considerable distance away experienced lower levels of take-up. High levels of take-up resulted mainly from HEIs making personal contact with students at key points leading up to the start of the Summer School.

23. Summer School staff perceived the students generally to be of high ability, and thought they would do well if they embarked on an appropriate higher education course. Positive comments were also made by providers about students' confidence, communication skills, enthusiasm, creativity and general attitude. Some students, however, were not motivated by courses because the content did not match their interests or A-level subjects.

24. There were some concerns expressed by providers that many students were from families with a background in higher education, and that many had already decided to apply to higher education, which was at odds with the intended target group.

25. There were a number of obvious successes across the Summer Schools. These included: interactive sessions that elicited high levels of student participation; the development of skills and expertise related to course activity; the inclusion of 'ice-breaking' activities creating a cooperative environment; the interest created through programmes constructed around a central theme; the support provided by student mentors; and improved links between the HEI and the local community.

26. Operational difficulties evident included: programmes being too long and too intensive; uneasy balances between providers treating students as adults and being responsible for their welfare,

and some lectures lacking interest to or relevance for students. Some staff reported difficulties in providing appropriate courses for both Year 11 and 12 students or that courses had been negatively affected by having large numbers of students from single schools.

27. Many students at the start of Summer Schools had limited views or misconceptions about studying at higher education level and related matters. Certain aspects of courses were very successful at widening views and dispelling misconceptions. Discussion groups and team-work activities dispelled the myth that higher education is delivered almost entirely through lectures and is a solitary experience. Graduate employment and employability-related sessions were successful, especially for Year 11 students, in explaining career opportunities associated with different courses, as well as outlining the range of courses available in higher education. Student mentors too had a positive influence, by talking about their higher education experiences and aspirations.

28. Student behaviour regarding their engagement with course activity, apart from some lectures, was described by providers as being good. There were numerous examples of students working in groups showing high levels of involvement.

29. Many Summer Schools explained the rules and regulations to students at the outset, which most accepted and followed. A small minority ignored specific rules, such as leaving the campus without permission, which caused problems for Summer School staff. A few serious incidents of misbehaviour occurred, which led to offending students being removed from courses and escorted home.

Results of the NFER Questionnaires

30. The NFER pre- and post-course questionnaires revealed significant changes in students' attitudes in several areas. The Summer Schools had a significant positive impact on students' appreciation of the personal benefits from education, their motivation to learn, their appreciation of the value of school work, their view on the usefulness of learning and their sociability.

31. Sections of the questionnaires collected information on student characteristics to determine the extent to which students were from the intended target group. Students as a whole were of high ability, included substantial numbers from minority ethnic groups and were more typical of the social class composition of England than were students accepted to degree courses in 1999. However, the data show that around half the students had one or both parents with a higher education background. Also, an overwhelming majority of students at the start of the Summer School were either definitely or probably intending to go on to higher education, with this aspiration becoming even more positive at the end.

32. The Summer Schools had a greater impact on Year 11 students than on Year 12 students with regard to influencing their intentions to attend a university or other higher education institution after completing A-levels or Advanced GNVQs.

33. At the start of the Summer Schools, students were looking forward to meeting new people, finding out about higher education life in general and learning new skills. Generally, at the end of the Summer Schools, the activities they had enjoyed the most were those they had been looking forward to the most. When asked to describe how the Summer School could be improved, there were some references to having more free time, the quality of food/drink, the lack of interest created by lectures, and changes to the length of the working day or week. In summary, the questionnaire results showed that courses overall were very successful from the students' point of view.

Recommendations for Good Practice

34. The NFER research team makes the following 15 recommendations for HEIs participating in the scheme for 2001 and subsequent years, and for HEFCE, LEAs and schools in supporting HEIs in this area.

1. Hold the Summer School at an appropriate time.
2. Plan courses so that each day is neither too long nor too intensive.
3. Use HEI sites that are closely grouped.
4. Prepare courses with the Summer School leader having a clear overview.
5. Induct teaching staff into key aspects of the Summer School.
6. Recruit and train the institution's students to work as mentors.
7. Base each course around a general theme.
8. Include group work leading to final presentations.
9. Set up strategies to ensure good levels of student attendance and retention.
10. Provide choice for students for visits to employers.
11. Involve recent graduates to contribute to sessions about employment.
12. Monitor progress, evaluate outcomes and provide feedback.
13. Set up a Summer School website.
14. *For Gifted & Talented Coordinators in schools* - ensure a balanced group of students overall.
15. *For consideration by HEFCE* - commission external monitoring and evaluation for 2001 with a particular emphasis on developments since 2000.

Chapter 1 **Introduction**

1.1 Background

The Higher Education (HE) Summer Schools scheme was announced in 1999 as part of the Excellence in Cities (EiC) initiative. The scheme in 2000 focused on Year 11 and 12 students who were judged to have high ability and were expected to achieve good A-level or equivalent results, but whose background was such that they might not consider applying for higher education, or if they apply might only consider a limited range of higher education institutions (HEIs) and/or subjects. The key aims of the scheme are to promote widening participation in higher education by under-represented social groups and to enable the most able students to achieve their full potential. The first Summer Schools were held in 54 higher education institutions in 2000, with funding of £4 million from the DfEE. The scheme is administered by the Higher Education Funding Council for England (HEFCE).

HEFCE commissioned the National Foundation for Educational Research (NFER) to conduct evaluations of HE Summer Schools and of the success of the scheme against its aims and objectives. The NFER conclusions on administration have already fed into the design of the scheme for 2001. The findings of this report on best practice and outcomes will feed into the further development of the scheme in future years.

1.2 Aims

The main aims of the research were:

- to provide an initial assessment of the scheme against its aims, objectives and intended outcomes;
- to make recommendations on best practice in conducting Summer Schools that can be used to inform the scheme in future years;
- to make recommendations on how the final evaluation of the 2000 Summer Schools should be conducted, and on the programme of evaluation that should be conducted for subsequent Summer School cohorts.

1.3 Methodology

The evaluation was designed so that each of the HEIs was involved in only one of the three elements of the evaluation, as outlined in 1.2 - Aims. The research into the operation of the scheme was carried out between June and August 2000. It involved a sample of 16 HEIs, which were representative of the three broad curriculum streams (science, arts/humanities, social sciences) that were the subject focus of the Summer School courses. The sample included HEIs within EiC areas, those outside EiC areas, and both residential and non-residential Summer Schools. The selection of these HEIs also took into account the dates on which the Summer Schools were to be held, to ensure that researchers were able to visit Summer Schools throughout the summer. These 16 HEIs, which held a total of 19 Summer Schools, are listed as Appendix 1.

The research was carried out through researchers visiting each of the HEIs on one or two days while the Summer School was in operation. Researchers used a variety of techniques - including in-depth interviews and group discussions with Summer School staff, other providers and participating students, and observation of sessions and activities - to gain an overview of the provision made by Summer Schools and how students received it. Documentation was collected from each Summer School. This included examples of course materials, materials produced by students as an outcome to activities (e.g. Summer School 'newspapers', audio tapes of music performances), promotional materials, introduction packs and monitoring instruments.

Additionally, each of the 54 HEIs in the scheme was required to complete a short self-evaluation report on the Summer School, known as Annex B - Report on HE Summer School to HEFCE. Information in these reports has been used to confirm and/or supplement information that was collected on the visits to HEIs.

A pre- and post-course questionnaire was used with students in 19 HEIs with the purpose of measuring changes in their attitudes to learning in general and higher education as a result of attending the Summer School. The questionnaires also collected information on the educational and social background of the students and their parents/carers in order to ascertain the extent to which the students came from the intended target group. These 19 HEIs are listed as Appendix 2.

Chapter 2 **Summer School Programmes**

2.1 Venues

Summer Schools used HEI premises in various ways depending on the content and focus of courses. Sessions and activities made use of lecture theatres, teaching rooms, halls, libraries, computer suites, careers suites, specialist studios (typically for music, dance, drama and media studies), science laboratories and sports halls. It was apparent that Summer School staff had taken necessary action with regard to addressing risk issues for students working at these sites, for example, by ensuring that there was appropriate supervision and that students wore the correct clothing in science laboratories. Also within the academic programme of some Summer Schools there were off-site visits to such venues as art galleries, museums, theatres and sites of historical, architectural or cultural significance. For sessions concerned with graduate employment and employability, many Summer Schools had visits to local companies and public sector premises, such as the town hall, the magistrates' court or hospital.

Wide use was made of both HEI premises and off-site visits for Summer School social programmes. For instance, there were activities at the HEI sports halls and grounds, and at Student Union premises. For off-site visits, there were trips to bowling centres, cinemas, theatres and watersports centres. One Summer School in the London area took students to the Millennium Dome, while another at an HEI situated in an area with a large Chinese community took students to see dragon-boat races at a local docks.

A few Summer Schools began courses by taking students on a coach tour of the local area, partly as a means by which to create a sense of group identity among participants but also to describe the social and geographical context of the HEI.

Some HEIs appeared more suited with regard to their location than others to holding Summer Schools for students of this age (i.e. 15- to 17- year olds). For instance, one HEI located in a semi-rural area was able to hold the entire Summer School at a 'satellite' campus where necessary accommodation, catering and teaching/learning facilities were available. Summer School staff felt that this was ideal for security, which might have been a concern if students had been based at the main campus. In contrast, one inner-city non-residential Summer School used HEI buildings at a number of sites. This meant that students were frequently travelling to and from sites, which took up a significant amount of time each day as well as making supervision more difficult. For some Summer Schools based at large campuses it was clear that students were not used to walking what they felt were considerable distances from site to site, with a sizeable number of them reporting that this was the worst aspect of the Summer School.

A few Summer Schools supplied students with maps of the campus or arranged for student mentors to take participants around various sites as part of introductory sessions to courses.

2.2 Duration and Timing

All but one of the 19 Summer School courses in the 'short visits' strand of the evaluation assigned five days to the academic programme, which was the minimum requirement set out by the DfEE. However, several of these Summer Schools brought students together on the day before the formal course began, typically the Sunday afternoon, for 'ice-breaking' activities, at which they had the opportunity to meet fellow participants and Summer School staff, including student mentors. This start to the Summer School was appreciated by the students and appeared to help them with aspects of the course, such as group working and general orientation around the Summer School site, when the formal course began the following day.

One Summer School course lasted two weeks, with the first week spent on sessions at the HEI and the second week devoted to project work, with students working at sites away from the HEI campus.

Across all the Summer Schools in the scheme, around 80 per cent of them were completed by the end of July. The earliest Summer Schools were held in the week beginning 26 June (five Summer Schools), while the latest was held in the week beginning 29 August (one Summer School). The reasons given by Summer School leaders for holding

courses in particular weeks included fitting in with long-standing commitments made by the HEI, such as conferences, when facilities were unavailable, and avoiding periods during which academic staff were attending conferences or busy with marking and other assessment duties. Some Summer School leaders spoke about holding courses in July rather than August so as to be able to recruit their own undergraduates or PGCE students to work as student mentors. Several Summer School leaders spoke about the relationship between holding the Summer School during the school holiday and the commitment of the participants, as exemplified by this leader:

'One of the aspects I am very aware of in this group is their commitment. I don't think that it is just a matter of chance. This is the first week of their summer holiday. They don't have to be here right now. It is not a week off school; it is a week in their hols. For students to consider doing a Summer School in their time, if they can come here and study when they could be anywhere, then I want to be working with children motivated in that way.'

Summer Schools that had been planned for the end of June experienced difficulties in recruiting students, as there were clashes with the GCSE examinations timetable. Summer Schools that were held when AS-level and GCSE examination results were announced also experienced difficulties with attendance. There were reports of fluctuations in attendance with students returning home on days when results were to be announced and rejoining the Summer School later in the week, so having missed a sizeable part of the programme.

A typical residential course started each day with breakfast at about 7.30 a.m. Academic sessions usually began at 9.00 a.m., lasting around three and a half hours. Lectures were often held during morning sessions. After lunch, further academic sessions were held, again lasting around three and a half hours. Afternoon sessions were usually more varied, including activity to do with graduate employment and employability, generic skills, study skills and off-site visits, sometimes interspersed with social/recreational activities. After dinner, a full programme of social events was provided, either at the HEI or elsewhere. Off-site events might include visits to bowling centres, cinemas and theatres. On return to the HEI, it was expected that students would retire to their accommodation at about 10.30 or 11.00 p.m. The format on the last day of the course was different, with time spent on preparations for presentations to be made by students, the actual presentations, the awarding of attendance certificates, and matters concerning overall evaluation of the course.

Generally, Summer Schools operated very full programmes, as suggested at a seminar on the conduct of Summer Schools organised by HEFCE. Institutions recognised that there were many activities and experiences they wanted to pack into the five days. Full programmes were also regarded as necessary to restrict free time during which students might decide to go off-site, in spite of rules forbidding this, and so be unsupervised. Many students found the days long and tiring, although they had enjoyed many of the activities and found them useful. There was also some resentment regarding the lack of free time. Several Summer School leaders thought that for future Summer Schools they would build in more free time, but still have in place systems whereby students were supervised.

Non-residential Summer Schools had less contact time with students. In particular, there was a limited social/recreational programme. Furthermore, some students spent a considerable amount of each day commuting to and from the HEI site.

2.3 Academic Content

2.3.1 HEFCE-recommended components

In September 1999, HEFCE issued written details of the scheme and guidance to HEIs covering aims, objectives, content, funding, etc. Table 2.1 below presents some of the guidance in relation to recommended academic content.

Table 2.1 **Part of the guidance relating to recommended academic content issued to HEIs in September 1999**

9. We believe the Summer Schools could usefully include:

a. Some teaching in the relevant generic subject area using the range of normal HE teaching methods. The purpose is not to coach students in their A-level syllabuses; nor should students be assessed at any point. Rather, the objective will be to give students a taste of the sort of subject matter and teaching/learning approach which they could expect on a degree course, through lectures, presentations and laboratory/studio work of generic relevance to their subject of study. The details of the curriculum would be worked out by the HEI in discussion with the schools involved.

b. Group work with students from other schools/colleges.

c. Reinforcement of generic skills in team-working, problem solving, communication, presentation and project planning.

d. An introduction to study technique appropriate to degree courses.

e. A day devoted to issues of graduate employment and employability. We recognise that the one-week period does not allow time for any significant work experience. But HEIs should make use of existing contacts with companies to give students a taste of how a major company operates. We would prefer this to involve an observational visit to a leading company for up to one day but, if this were to be impossible, the day's employment and employability-related activities might take place at the HEI. In the latter case, it would need to include participation by a representative or representatives of employers and by recent graduates.

f. A one-to-one session for each student with a member of the HEI teaching staff some time during the Summer School in which they can discuss: the student's HE and career aspirations, what it is like being at an HEI, the range of degree courses the student could consider, and the student's expectations or experience of the Summer School activities undertaken so far.

g. HEIs may also wish to involve existing or former students in the Summer School, if possible involving students from the same home geographical area as the Summer School students.

Summer Schools included a combination of these components in their programmes, although there was some variation in the amount of time devoted to each component. For instance, one Summer School effectively devoted only half a day to graduate employment and employability-related sessions (point e. in Table 2.1) rather than the recommended whole day. Likewise, some Summer Schools had a major focus on generic skills of team working, problem solving and so on (point c. in Table 2.1), while other Summer School courses placed little emphasis on this component. The variations evident were largely related to the subject focus, with the operation of courses generally not appearing to suffer from any imbalance among the various components.

2.3.2 Subject focus

Apart from the specialist Summer Schools, which focused on music, drama or marine biology, HEIs were expected to run one or more courses within the broad content areas of arts/humanities, science and social sciences. A few HEIs chose to run 'integrated courses' covering a wide range of

content areas. This decision appears to be mainly a result of not having sufficient staff available from any particular faculty or department to provide a tightly focused course.

Within the broad content areas, a wide range of courses was provided across the Summer Schools. Some Summer Schools offered a single course for all students, while others offered several courses from which students could select after they had enrolled for the Summer School. An example of the latter was a Summer School that provided five choices of science course: chemistry, electronics, engineering, sports science/medicine/forensic science, and biological sciences. Arts/humanities and social science courses too covered many areas. For instance, arts/humanities covered courses on media studies, drama, history and English among many areas.

'Integrated courses', provided by a few Summer Schools, took the form of 'taster' sessions across many subjects, with some Summer Schools linking the different subjects together within a general theme. One Summer School provided several 'integrated courses', which together covered over 30 different subjects. Evidence from visits to institutions and from student comments on questionnaires suggest that courses comprising 'taster' sessions across many subjects were generally found to be more useful for students, especially those in Year 11, than were courses within a single broad content area.

In general, students were pleased with the content of the courses they had selected or been assigned to, although there were a number of examples of students having enrolled for a course that in practice was somewhat different from what they were expecting. Examples included students doing engineering when they were expecting science more akin to their A-level studies, or students doing media studies when they were expecting an English literature course. Not surprisingly, the greatest disappointments occurred for those students who had enrolled for courses with little or no idea what the content area was to be. This problem should not arise in 2001 when students are provided with a prospectus that contains detailed information about the courses available.

2.3.3 Generic skills

The inclusion of generic skills in the academic programme was evident at all Summer Schools in the 'short visits' strand of the evaluation. These included the skills of creative thinking, problem-solving, team-working, explaining, conjecturing, planning and presenting. (Interestingly, in the post-course questionnaire used in the 'questionnaire' strand of the evaluation, 84 per cent of students either agreed or strongly agreed with the statement 'We were encouraged to think and learn for ourselves at the Summer School.' This suggests that a non-didactic approach was mostly taken with considerable emphasis on generic skills - see Section 5.2.4 in Chapter 5.) It appeared from the work performed by students that they were generally familiar with using these skills from their work at schools. Where direct support was provided by Summer Schools in this area, it was for the use of IT resources, for example several Summer Schools taught students how to use PowerPoint for planning and delivering their presentations at the end of the course.

Overall, Summer School staff were impressed with the level at which students employed generic skills, with group presentations on the final day clearly demonstrating high levels.

There were a few examples of relatively weak team-working skills however, where teams comprised both Year 11 and Year 12 students, or where students from the same school tended to dominate the group. In one or two cases, the composition of groups was changed to facilitate more productive working.

2.3.4 Study techniques

HEFCE advised HEIs to include within their Summer School programmes an introduction to study techniques appropriate to degree courses. Summer Schools did this mainly through the use of their learning resource centres and libraries. The study techniques involved were centred on research skills, with students guided to use the Internet, specific websites, on-line library catalogues and on-line CD-ROM databases. Generally, students' experiences in this area were of an informal type, with them using self-help handbooks, though

support from staff was available when students requested it. One or two Summer Schools did provide formal study skills sessions, usually with each session lasting about one hour, delivered by a member of the institution's teaching or academic-related staff.

A few Summer Schools supported the study techniques aspect of the course with handouts; in one case students were given a copy of the short study skills guide that the institution gave to every first year undergraduate.

A few Summer Schools also included short sessions in the programme covering aspects to do with being mentally and physically prepared for higher education study. These included sessions on time management, stress management and assertiveness.

2.3.5 Graduate employment and employability-related sessions

HEFCE recommended that Summer Schools devote a day to issues of graduate employment and employability (see Table 2.1 in Section 2.3.1). In practice, the majority devoted the equivalent of one day to this area, though there were cases of the equivalent of one and a half days or just half a day at some Summer Schools. In terms of how Summer Schools structured this amount of time within the course, most allocated an entire single day to relevant issues. Other Summer Schools used two half-days, usually one towards the beginning of the week and the other towards the end, while others, especially specialist Summer Schools, ran a short session each day of the course. One exception to these approaches was a two-week Summer School, where the entire second week was devoted to work experience-type activities concerning either biochemistry or engineering.

A wide range of activities came under the umbrella of graduate employment and employability issues across the Summer Schools. These included:

- sessions delivered by the HEI's careers service or by CRAC (Careers Research and Advisory Centre), covering the range of careers, entry qualifications and employment skills, how to research employment opportunities (usually via the Internet), etc;
- visits to employers where students questioned employers about qualifications, career routes, etc, and saw the workplace and some work in progress;
- sessions at the HEI where invited employment representatives and/or recent graduates spoke about their qualifications, the value of a degree, work experiences, etc;
- business simulations, usually in the form of business games or workshops about product design and preparing marketing strategies;
- visits to business/industry exhibitions, put on for the general public.

A wide range of industry, commerce and public service employers were involved across the Summer Schools, including manufacturing companies, media providers, accountancy firms, building societies, the police, the NHS, the armed forces, leisure management, IT companies, publishers, law practices, medical professions, and the Teacher Training Agency. A particular emphasis made by many employers and HEIs was the need for students to develop transferable skills from their higher education courses, and that a high level of flexibility was necessary for success in their future careers.

The majority of the employment and employability-related sessions at one Summer School were run by a multi-national company near to the HEI, a company which had built up strong links with the HEI over many years. This company provided five members of staff who ran a number of separate sessions throughout one morning. The sessions included information on their own higher education experiences, career routes, and subsequent employment at the company, along with an 'analytical thinking' session, quizzes and a description of employee roles regarding the development and launch of a new product. These sessions were said by the Summer School leader to have been of considerable value and much appreciated by the students.

However, elsewhere there were mixed feelings expressed by Summer School leaders about the success of employment and employability-related

sessions. While many reported that these sessions had proved successful in encouraging students to consider the benefits of higher education and career possibilities, a sizeable minority of Summer Schools felt that they had only repeated what the students knew or had experienced already. These thoughts were echoed by the students themselves. A few visits to employers were disappointing in that they were little more than 'factory visits' without the opportunity for students to discuss matters with employers or the workforce. A few Summer Schools reported that they had decided not to visit employers because the number of students was too large for this to be productive.

At several Summer Schools, many students were disappointed that their particular interests with regard to careers they were currently considering were not catered for by these sessions. However, this problem really stems from the students opting for, or being assigned to, a course with a content focus that they were not interested in. A minority of Summer School leaders thought on reflection that the course would have been significantly better without the requirement to include this aspect.

Where employment and employability-related sessions appeared to be particularly successful was in cases where recent graduates, with good communication skills, spoke to groups of students about their backgrounds, higher education courses and work experiences. Business games, provided they were adapted so as to be suitable for the age groups involved, were successful in the sense that they enabled students to focus on some of the general skills and employee attributes necessary within certain employment areas. Other successes noted were sessions in which students in small groups were directed to search websites of employers and HEIs to find information on careers, qualifications and related matters.

2.3.6 HE and career aspirations sessions

HEFCE advised Summer Schools to hold a one-to-one session for each student with a member of the HEI teaching staff to discuss the student's higher education and career aspirations, and a number of other matters (see Table 2.1 in Section 2.3.1). Most Summer Schools held such sessions. At least two Summer Schools in the 'short visits' strand of the evaluation made attendance at these sessions optional.

There was an overlap between these sessions and those devoted to graduate employment and employability-related sessions in some respects. For instance, interviews covered such aspects as the advantages of a degree, the various types of course on offer (usually those at the particular institution), the differences between vocational degrees and subject-specific degrees, what employers were looking for with regard to the qualifications of their workforce, among other matters. The one-to-one nature of these sessions served a valuable purpose as many students reported that they had been hesitant about asking questions when in larger groups and now had an opportunity to discuss their concerns for 20 minutes or so and not feel self-conscious.

Some students already had firm ideas about what careers they wanted to pursue, but were unclear as to the qualifications required and range of potential courses available, both at the institution and elsewhere. Others were concerned that their A-level subjects had greatly restricted their career choices. These students in particular found the session of use. Not surprisingly, HEI teaching staff were reluctant to go beyond providing students with information about courses and careers, and how to obtain such information in the future, to offer specific advice to students about their career choices as they had little background knowledge of individual students.

A number of students were concerned about the financial implications of attending a higher education institution for three years or more, and the fact that they were likely to finish a course in debt. The general line taken by HEI teaching staff in response was that a higher education qualification, provided it was a well chosen one, would lead to the student being significantly better off financially in the longer term than if they went into employment immediately after their A-level studies. On this matter, some Summer Schools included sessions in the programme for all students about the financial benefits of a degree and how to manage finances while in higher education.

2.4 Teaching and Learning Styles

The teaching and learning styles evident in the Summer Schools generally favoured more active than passive modes of student involvement. While the majority of Summer Schools included lectures in their programmes, most decided to keep the number of lectures quite low. The intention here was to encourage students to engage with the course content rather than be passive receivers, as emphasised by one Summer School leader:

'We stressed with all tutors that the input should be interactive. That was our target, but some Year 11 students have commented on the evaluation forms that they found some sessions too lecture-based. But we feel the vast majority of provision was successful in being seminar-style rather than lecture-style.'

For many Summer Schools, lectures were not well received by the students, as discussed elsewhere in this report. Some teaching staff made their lectures more interactive than they would do if delivering similar material to undergraduates, or lectures were kept fairly short and concise, which appeared to address the problem to some extent. The case for including lectures in Summer School courses was made by another Summer School leader, who then went on to outline the range of teaching and learning approaches followed, and the reason for using them:

'They've all experienced one large lecture, because we feel that's something they haven't done at school, and the discipline needed for that gives you something to aim for. Then there are seminars and group work, and a project for the week. The student guide [a study skills booklet] and the counselling sessions have also given this notion of learning from one another, which we try to promote - learning from and with your peers.'

The above quote refers to many of the teaching and learning approaches used throughout the Summer Schools. Some Summer Schools, in particular those with a science focus, included demonstrations and practical/experiment work. Here, students appreciated 'hands on' work, often using equipment and resources new to them and with a low ratio of students to support providers.

Group work activities, used at most Summer Schools, typically took the form of a strand continuing throughout the course, leading to a presentation from students on the final day to an audience. Some presentations were made using PowerPoint, while others were less technologically advanced and were centred on poster displays.

The teaching and learning methods used at the specialist Summer Schools for music and dance mainly comprised students preparing performance pieces, rehearsing these pieces and developing them further, and a final performance to an invited audience.

For all types of Summer School, the inclusion of group work leading to a final presentation gave the course a specific goal, which motivated the students, encouraged them to work cooperatively, and concluded the Summer School on a high note.

2.5 Social/Recreational Activities

The intention of the Summer Schools was to provide students with a wide experience of higher education, including aspects to do with the social/recreational activities. To this end, Summer Schools provided many different types of activity. The residential Summer Schools were able to devote more time to this than the non-residential ones, simply because time was available in the evenings. Social/recreational activities across Summer Schools were held both at the institution and at off-campus locations. The latter included outings to theatres, cinemas, bowling alleys, restaurants, riverboat trips or discos, and additionally for a few Summer Schools visits to watersports centres or other adventure sports centres. One Summer School included a three-hour afternoon session at a local reservoir where students had the choice of kayaking, wind surfing, dinghy sailing and power boating. Many Summer Schools included early in the programme a tour of the local area, partly as an 'ice-breaking' activity and partly to describe the social and geographical context of the HEI to students.

At the institutions, social/recreational activities included a wide range of organised sports (e.g. football, basketball, aerobics, fitness gym sessions,

yoga), barbecues (unfortunately summer 2000 turned out to be very wet), ceilidhs, discos, salsa dancing, quizzes and competitions. Many activities were organised and run by the student mentors, with this being part of their paid responsibilities. In addition, there were examples of informal activities, such as sports, karaoke and comedy sessions put on by student mentors.

At most Summer Schools, students had a choice of the formal activities, while at others they were optional, with those students not wanting to take part being allowed to watch television or use Student Union facilities such as the pool tables.

The social/recreational parts of courses were much appreciated by the students, with these activities adding to their overall enjoyment of the Summer Schools and being a means by which students from different schools could form new friendships.

2.6 Internal Monitoring and Evaluation

Each of the 54 HEIs in the scheme was required to submit a short report to HEFCE on the completion of the Summer School. In order to produce this report, as well as for their own purposes, Summer Schools used one or more methods to monitor and evaluate the level of success of courses. The more common methods were:

- one-to-one interviews with students conducted by HEI teaching staff as a part of the HE and career aspirations sessions
- target setting by students
- end-of-course questionnaires used with individual students
- end-of-course discussion groups at which students were asked to provide verbal feedback to providers and administrators
- daily logbooks kept by individual students in which they recorded their opinions on sessions and other Summer School activity
- observation of student presentations on the final day
- review meetings held by staff after the completion of the Summer School.

The use of end-of-course student questionnaires was the most common method by which Summer Schools monitored and evaluated their provision. Typically, students were asked to indicate what sessions they had found most or least useful, what skills or knowledge they had gained, whether there had been any impact on their intentions of going on to higher education, what their opinions were regarding the social activities provided, and what changes they would make to improve the Summer School. Daily logbooks kept by individual students on a few Summer Schools collected similar but much more comprehensive information.

Informal monitoring and evaluation of course activity by Summer School staff naturally occurred at all Summer Schools. Most leaders were not directly involved in delivering sessions, and many, when they had the opportunity, took the time to observe parts of the programme to form an impression of the effect on students. Many Summer Schools had final day presentations made by groups of students. Summer School staff regarded these presentations as one means by which the success could be judged. This was especially so for specialist Summer Schools (e.g. music, dance) in which the acquisition of skills could be observed in performances. In fact, one Summer School, focused on music, recorded students' performances each day, which provided evidence of the progress made by the students.

One Summer School in the 'short visits' strand of the evaluation used a target-setting method. Individual students completed a target sheet on the first day indicating what they hoped they would achieve from the main subject area, in key skills and from the career advice session, as well as in more general areas. On the final day, each student was asked to consider the extent to which his/her targets had been met, as well as asked to write a short report of the week. This information fed into the Summer School's evaluation, and copies of the student reports were sent to their schools.

Two Summer Schools were following CREST Awards projects as the core content. As part of these projects, there is the requirement that students achieve a number of stated criteria within an overall profile. For these Summer Schools, the achievement

of the criteria was a central means by which the level of success was determined.

Some Summer Schools used the evidence they had gathered from students to produce an evaluation report, written by the Summer School leader in most cases, to go to participating schools. Some of these reports included statistical analyses of the questionnaire responses, and a few also included attendance data. Some Summer Schools also used questionnaires with staff, including student mentors, which provided further information that was included in their reports. One Summer School working with around 15 local schools planned to hold a meeting in the autumn term with the Gifted & Talented Coordinators in schools at which feedback on the Summer School would be given and initial plans for the next Summer School begun. Many of those Summer Schools that had not provided any feedback to schools this year were considering that this should be done for future courses.

In the longer term, a few Summer School leaders commented that they would identify through the Admissions Office whether any Summer School students had applied to the institution, as further evidence of the Summer School having an influence on students' HE aspirations.

HEFCE suggested to HEIs that they should present an attendance certificate to each student at an end-of-course celebration. Summer Schools did this, and it was clear that students appreciated that their involvement in courses had been acknowledged in this way. A few institutions took the opportunity at celebration events to present students with other items as well. For instance, some presented college mugs, books or CD-ROMs. There were 'joke' awards as well at a few Summer Schools, such as an award for 'the best dancer at the disco' and one for 'the student who had got lost most often', which added to the general enjoyment of the event.

2.7 Budget Expenditure

Each Summer School was awarded a total grant on the basis of £800 for each residential student and £550 for each non-residential student. While many courses ran with fewer students than had been budgeted for, as reported elsewhere in this report, this was not a budgetary problem for HEIs as HEFCE agreed to pay actual costs incurred up to the total amount HEIs would have received if all places had been filled.

While there was considerable variation among the Summer Schools regarding whether the Summer School leader, HEI teaching staff and others were paid and the amounts they were paid (see Chapter 3), the payment of Summer School staff usually accounted for the largest proportion of the grant. As Summer Schools recruited student mentors to ensure a very favourable ratio of student mentors to students, this meant that a substantial amount of the staffing budget was spent on payments to student mentors. For residential Summer Schools, there were payments to night-time supervisors, who were often school teachers.

Many Summer Schools also spent part of the grant on fees to external providers. One HEI allocated 20 per cent of the grant to buy in an external provider, with considerable experience of provision of this type, to manage the Summer School. Another Summer School recruited the services of a professional careers advice company, at a cost of £5,200, to run graduate employment and employability-related sessions. One specialist Summer School, focused on music, bought in professional musicians at a cost of £300 per person per day.

Residential Summer Schools naturally had expenditure on student accommodation, meals and night-time supervision. Costs of around £140 to £170 per student were suggested by some Summer School leaders as being the amount spent on accommodation and food for the week. Accommodation appeared to be slightly more expensive for Summer Schools hosted by HEIs in the London area.

A major area of expenditure for many Summer Schools was travel costs, especially for those either some distance away from EiC areas or those providing courses for students from many locations around the country. (N.B. A requirement of the scheme was that students should not have to pay travel costs.) For instance, one Summer School

spent a large sum on hiring coaches to pick up students from several cities to bring them to the Summer School and then returning them to these sites at the end. Another Summer School, which used trains for student travel, allocated funding for staff to escort students on train journeys and then on to the Summer School.

Non-residential Summer Schools too had to spend part of the grant on student travel costs to and from the Summer School. Dealing with this expenditure on a day-to-day basis was for a few Summer Schools an awkward administrative chore, but not for one Summer School which issued each student with a travel card for the week. Another Summer School took the decision to give each student a bursary at the end of the week to cover travel and other out-of-pocket expenses. This made the administrative task easy, and may have had a positive effect on attendance.

During Summer School courses, there were travel costs incurred for field trips, visits to employers and social/recreational activities. There were very few examples of monies being spent on equipment for academic sessions, while there was a small amount of expenditure on consumables and materials for student use, such as notepads, folders, felt-tip pins, flip charts, floppy disks and audio tapes.

A few Summer Schools reported some unexpected expenditure while courses were under way, but this was often very minor in amount, such as sports equipment and materials for social activities. Where unexpected expenditure was not minor though was for those Summer Schools that escorted home students who had been removed from courses for misbehaviour.

Chapter 3 **Staffing**

3.1 Staffing Structure

The staffing structure of Summer Schools was similar across HEIs. Each Summer School had a leader (though a small number had more than one) supported by a team that included members of academic, academic-related and administrative staff, student mentors and other support workers. The number of people involved varied widely across the Summer Schools. For example one Summer School for 180 students had two leaders and 28 full-time mentors, providing a staff:student ratio of circa 1:6. Others had staff:student ratios ranging from 1:5 to as high as 2:3 for some specialist activity. While there was this variation, the staffing structures in place worked well.

It was evident that a collegiate approach was taken both in terms of initial development of Summer School activity and in the day-to-day running of courses. One Summer School leader described how he had adopted a collegiate approach from the initial involvement in the scheme:

'Previous to the summer school starting I put together a team to set up the scheme. That meant writing a programme, inviting the tutors, booking residential arrangements, developing the content for each element of each day... a team of three was satisfactory because they are a good professional team that already work together...'

This collegiate approach to activity was evident across Summer Schools where the Summer School leader had overall charge, but generally a 'first among equals' approach was taken where all team members had shared responsibility for ensuring that courses ran as planned. Although there was a distinction between Summer School leaders, core team members and other staff, it was evident from many Summer Schools that this was an administrative distinction only.

While the academic, academic-related and administrative staff were generally employees of the host institution, the mentors were primarily students who had recently gained qualifications at the host institution - for example, a number of Summer Schools drew their mentors from students who had recently completed a teacher training (PGCE) course.

In addition to on-site staff, there was involvement from external providers, especially in relation to the graduate employment and employability-related sessions. Companies located close to the host institution frequently provided activity. This involved either members of staff from those companies visiting campuses to provide sessions, or groups of students visiting workplaces to observe or take part in activity. Personnel from outside the host institution involved in Summer School activity were selected by their employer. It was evident that detailed discussion had taken place between host institutions and external providers to ensure that suitable personnel provided an input.

3.2 Recruitment of Staff

There was wide variation in how staff were recruited to Summer Schools. Methods used varied according to the position. With regard to Summer School leaders, there were a mixture of those who were approached by their institution because they had run summer school schemes before, and those who were approached by institutions because either it was felt that such activity lay within their general job remit, or they were interested in managing this work.

Summer School leaders were usually approached by the university director of admissions or director of academic affairs (or someone with comparable status within the institution) in the first instance. There was no formal application, interview or appointment procedure with regard to the appointment of a Summer School leader. One leader described the ad hoc nature of his appointment:

'The Director of Admissions told me that there was a project for me... the summer school, and that was in December 1999. I went to the seminars in London and also went on fact-finding missions... it was very useful to tap the experience of others who had run similar schemes. For me personally, I was starting from scratch but I leant on the experience of SATRO here who had run a pilot scheme previously...'

Another Summer School leader noted that she had been approached by her line manager to be the leader, and that she did not realistically have any

other option but to agree to this. This said, she made it clear that the decision was not against her will.

Although there was no formal process for appointment, it is evident that institutions were selective in their approaches to individuals, ensuring that they had the necessary ability to undertake this role.

The involvement of specific departments and teaching staff at institutions also varied. In developing programmes and activities, Summer School leaders frequently approached specific departments to ask for their support. Initial contact was usually through heads of department or faculty heads who were asked firstly if their department could offer activity and, secondly, who would be able to provide this. In a number of cases it was not only Summer School leaders who contacted heads but other senior members of administrative staff at the institution, such as directors of academic study. The response from academic departments was generally positive, although it was evident that there was a variation to requests for involvement. Those departments that declined to take part gave a variety of reasons, primarily based on the lack of resources or the fact that many of their staff would be on leave, attending conferences or involved in assessment duties for the institution. Few departments appeared unwilling to support the initiative because of lack of interest.

Teaching staff were approached in a variety of ways. Sometimes they were asked directly to be involved by the Summer School leader or head of department, as one leader described:

'Myself and the head of... jointly approached departments to ask them what they might be able to do to support the HES school programme. This approach was to the Director of Schools, as a school is bigger than a department but smaller than a faculty. We then worked with the directors of schools to identify staff to provide the specific support to the projects. The projects have been put together through a process of recognition... we were selective when we put together the programme of whom we would ask to be involved...'

In addition to this focused approach, a number of departments opened up involvement to colleagues asking them to volunteer activity that they could provide. The result was that a number of Summer School staff were involved who had volunteered themselves and were offering activity that they felt they were able to provide. While this did provide the opportunity for a large number of staff to become involved, the effect was that programmes did not always appear to have coherent linkage between the disparate range of activities. In a small number of cases this resulted in the course being more a collection of the interests of those departments or individuals that had offered to take part, rather than a cohesive and complementary programme for students. The fact that it was a combination of requests for involvement from heads of department and self-selection/referral meant that Summer School leaders were not involved in the appointment of all those teaching on Summer School courses.

The recruitment of academic-related staff was frequently dependent on expertise and ability - for example, laboratory technicians who were able to deal safely with chemicals that students would be using, or administrative staff who had knowledge of institutional systems and structures. In some instances the institution's 'job pool' provided necessary administrative and secretarial personnel.

Recruitment of student mentors was more structured and rigorous than that of other staff involved in the Summer Schools. The majority of Summer Schools interviewed prospective mentors to ensure that they were able to deal with the considerable demands placed upon them, especially in relation to the ability to work with individuals and groups of students. One Summer School leader described its recruitment process and qualities looked for:

'It is true that the student ambassadors were very carefully selected by members of the Department of Continuing Education's staff who had experience of employing students in other summer schools. There were four times the number of applicants to vacancies. Successful applicants were chosen through interview and team activities on criteria of maturity, reliability, likelihood to show initiative

and previous experience.'

Though Summer Schools did have formalised interview procedures it was evident that a small number of student mentors were selected prior to interview, by the Summer School leader, with selection predicated upon personal contact:

'With the selection of PGCE students it was from my own personal invitation as they were from courses I ran. I chose four reliable and conscientious PGCE students whom I thought would do well... each student then had to complete an application form and that was then subject to police checks.'

Though the recruitment of student mentors was carefully considered, the time factor meant that this process was not always as selective as Summer School leaders would have liked:

'They [student mentors] were keen to take part. I didn't have time to interview them so I literally went for the first come first served with the proviso of a gender mix and ethnic mix. I struggled to find enough ethnicity in the... applications.'

This said, it was evident that leaders had far greater involvement in the selection of student mentors than with other members of the Summer School staff team.

3.3 Summer School Leaders

All Summer School leaders were members of staff at the host institution. As described, recruitment to the role was predominantly based upon job activity and previous knowledge of working on and/or running similar schemes. Though the recruitment process was rather ad hoc it was evident that Summer School leaders enjoyed the challenges that the role provided and valued the opportunity to become involved in the initiative. In addition to this, many leaders noted that they supported efforts to widen participation in higher education and they perceived that this initiative went some way to attempt to do this for future student cohorts.

The majority of Summer School leaders were not members of academic teaching staff (though there was support provided by relevant staff as and when required), but were drawn from academic-related personnel at the institutions. Summer School leaders held a variety of posts within universities including, Directors of Admissions, Admissions Officers, Executive Directors, Learning Development Officers, Directors of Schools and College Liaison, and members of staff from the office of Directors of Academic Study. It was evident that the experience that Summer School leaders were able to bring, in terms of knowledge of both previous schemes and/or institutional systems and structures, was invaluable to the efficient running of courses.

Though Summer School leaders had a variety of expertise to bring to the post, there was consistency in activity that they were involved in. Typically, it was the role of the Summer School leader (in conjunction with other institution staff) to develop the programme. In relation to activity while Summer Schools were operational, it was evident that the majority of Summer School leaders saw themselves as responsible for the day-to-day management of courses. This said, at least two Summer School leaders in the 'short visits' strand of the evaluation devolved this role to another party. One such Summer School leader noted that this step was taken so that he could then take responsibility for liaison between the host institution and HEFCE, and have overall responsibility for issues of Summer School finance.

Generally, Summer School leaders were not involved in delivering the programme, because they were more involved in monitoring and observing sessions and offering support as and when required. Day-to-day demands, however, made it difficult for some leaders to observe as many sessions as they would have liked, as the following quote shows:

'Fire fighting'... we had intended to be able to view the sessions... but we have been dealing with discipline problems... lost room keys... dealing with the fact that the catering hadn't been put on satisfactorily... sorting out broken phones... a multitude of dead small almost insignificant things, which have just taken over.'

Once Summer Schools were operational, Summer School leaders were involved in a variety of activity that was both strategic and operational. Responsibilities highlighted by leaders included some or all of the following:

- ensuring, as far as possible, that student numbers were as high as possible. This involved detailed and lengthy negotiations with LEAs, schools and individuals prior to, and at the start of, Summer Schools;
- welcoming students onto courses;
- holding progress meetings and debriefings with members of Summer School staff, especially the student mentors;
- observing course activity (as and when time permitted) to monitor development;
- organising and contributing to end-of-course celebration events;
- liaison with the institution and external agencies involved in Summer School provision;
- facilitating the smooth running of the programme;
- ensuring the effective operation of the student mentor system;
- dealing with discipline issues as they arose - in a number of cases this meant excluding students from courses and either taking them home personally or making the arrangements for this to happen;
- dealing with domestic arrangements.

A number of Summer School leaders noted that the period prior to the beginning of the Summer School was the most challenging, in terms of ensuring adequate numbers of students attended. Although leaders were very busy while the Summer School was operational, it is evident that the initial start-up period was perceived to be the most challenging aspect of the role, as one leader noted:

'I am a non-academic... my role does not include being a provider. But my role now is more of a back-seat role now that the students have arrived. The role prior to Monday was stress-related, trying to achieve numbers. It is much easier now the week has begun.'

Despite the great demand made of Summer School leaders both prior to and during the Summer Schools, many valued the opportunity that the role had given them. A key activity for leaders was monitoring and evaluating the programme, as this was a method by which the success of individual Summer Schools could be gauged. Generally, Summer Schools conducted in-house evaluations, with leaders writing reports for institution authorities, participating LEAs and schools, as well as the one for HEFCE.

Despite similarity of Summer School activity, the financial remuneration received by leaders varied widely. A small number received no payment for their involvement in the Summer School programme - the reason being that it was felt by the institutions involved to be part of the job description of the post-holder and therefore no additional payment was required. Other leaders received small amounts in addition to their salary. The reason given for this was that although they were still being paid by the institution, Summer School activity had been over and above that required by their post. One leader described how £3,500 had been allocated from funds to pay for her time. Of this amount, £3,000 was retained by the institution to cover salary costs, while she received £500. Other Summer School leaders received amounts ranging from £270 to £10,000. Those leaders who were paid at the higher levels were usually on the institution payroll but on a part-time or consultancy basis, and their remuneration reflected this.

3.4 HEI Teaching Staff

The HEI teaching staff were the key providers on the Summer School courses as it was they who delivered the teaching and learning input. Involvement from teaching staff varied widely from one-off lectures given to small groups, repeat lectures and tutorials to larger groups, to a series of lectures and masterclasses for all students at the Summer School. Though the approach taken also varied, many Summer Schools did attempt to re-create a university context, with lectures, tutorials, workshops and associated activity.

It was evident that different approaches were t en by departments within institutions. Many departments offered a range of activity that needed to be coordinated at both a departmental and a Summer School level. A number of teaching staff noted that they were acting as departmental coordinators. Appointment to departmental coordinator positions was usually predicated upon previous involvement in related activities such as CREST schemes or community-based education schemes developed by institutions as part of their outreach programmes. Activities for those staff coordinating an input included planning and organising sessions within and between departments, in addition to giving lectures, seminars and tutorials. Those people in coordinating positions noted that the work involved had been enjoyable but that it had, in some cases, taken longer than had been expected and costed for.

For those members of staff providing one-off sessions, involvement in the Summer School as a whole was more limited. While many of the sessions provided did link to other elements of the course, it was evident that this was not a requirement, with a number of sessions being stand-alone in nature, providing 'taster' sessions rather than being linked to course themes. In a number of cases, the activity provided was taken from lectures prepared for undergraduates and therefore little extra planning was required. Other members of staff did provide lectures written specifically for the Summer School programme, and this did entail considerable planning on their part.

It was evident that teaching staff enjoyed their involvement in the Summer Schools, and felt that they had benefited from the experience. A key benefit was felt to be the fact that the Summer Schools provided them with the opportunity to work with younger students in a higher education context, with the aim of encouraging them to attend HE institutions in the future. In addition, the opportunities to encourage interest in their subject and attract potential students were also features that were welcomed. The organisation of Summer Schools was also something that many lecturers commented favourably on, in terms of the resources available and the quality of the support provided for them. One lecturer noted that:

'I've just given a two-hour lecture... all the stuff was laid on as I asked... a projector and video and so on. The great thing here is that the lecture theatre was set up in advance... the lecture theatre was chosen and booked for me - I just had to prepare the lecture. I could say, that is how it should be.'

In terms of monitoring and evaluation of sessions, it was evident that lecturers were reflecting on activity and, if there was the opportunity, making alterations as and where they felt were necessary. There was formal monitoring and evaluation of activity, but this was generally at a Summer School or departmental level rather than on an individual basis.

The inconsistency over staff payment arrangements was mirrored in relation to remuneration of lecturers. A number noted that they were receiving no payment, and others that they themselves were not being paid but their departments were receiving extra funding. There was no consensus as to what this departmental figure was, but it was evident that there was considerable variation. One lecturer noted that departments were receiving £128 for every hour of activity provided while others suggested a total payment figure ranging from £500 to £800. While some departments did receive these funding levels, lecturers were generally not aware of the funding allocation.

Other lecturers described how they were being paid for Summer School involvement, with respondents describing complex funding formulae for working out rates of pay. One lecturer noted that she would be receiving £32 per hour for the first 20 hours, with a rate of £16 per hour after that (preparation time was included in this pay formula). Others described how they were receiving £25 per hour with some lecturers being given a one-off fee of between £120 and £350. In one institution, some lecturers were being paid while others received nothing. This would suggest that funding was arranged on a departmental basis, this accounting for the wide variation. Though there were these different levels of remuneration, lecturers noted that their involvement was mainly altruistic rather than for financial gain.

3.5 Academic-related Staff

A variety of academic-related staff supported Summer School courses. Generally, their support was in relation to sessions requiring specific skills or knowledge - for example, science or sports activity, or musical ability. As well as staff on the institution payroll, postgraduate students were involved (those completing doctoral research projects, for example), providing students with another point of contact during courses. While the appointment process was generally not as rigid as that for student mentors (because a number of academic-related staff were already on payroll), it is evident that a selection process did take place. Some Summer Schools that required this form of support did interview candidates, and in a number of cases contracts were issued to those successful. Those postgraduate students involved were generally paid for their time, with figures ranging from £300 to £350 per course. One leader of a specialist Summer School that focused on music described the role of the postgraduate students:

'We're paying well because they are working hard - £350. They have a contract and they are working from 9.30 a.m. up till 11.30 at night. Their expertise is useful in the group work, and the... students have also presented a solo each day to the students. They bring their experience of classical music to the students, and the informal interaction with young students who are such competent classical players is very good.'

The involvement of these postgraduate students was welcomed by Summer School leaders and by the postgraduate students themselves.

3.6 Student Mentors

It was evident that the student mentors played a key role in Summer School provision. The primary difference between academic-related postgraduate students and student mentors was that the focus for student mentor involvement was generally more 'pastoral' than academic. Specific subject knowledge (though useful) was not required. Rather it was the ability to work with young people and to ensure that they provided a point of contact for students in an unfamiliar environment. One Summer School leader described how the student mentors:

'... have been a great addition to the team. They are experienced in schools and have shown me they know how to deal with kids and with problems. They know how to motivate and how to focus kids into their tasks. It has been a very effective choice of staffing.'

Another Summer School leader described in detail the key role that student mentors had on residential courses:

'There are always going to be issues when you take... young people. You would be crazy not to consider these. The way that we decided to operate was by using twenty-eight mentors. We had fourteen groups of youngsters and a male and a female mentor for each group, so technically speaking no mentor had more than eight students. It was quite easy then for mentors to get their lot together, so that was a good personal way.'

Student mentors were paid for their involvement in courses, and this was supplemented by further payment if extra activities were carried out, for example, accompanying students on the return journey home from the Summer School. The payment received by student mentors varied across the Summer Schools. Some were either given a one-off fee or were paid at an hourly-rate (amounts mentioned included £5 to £7.75). Amounts for one-off payments also varied.

Student mentors also provided a valuable role in monitoring and evaluation by feeding back information to Summer School staff as to how sessions were developing or what students thought about the activities provided. Moreover, they were also able to provide staff with any information relating to individual students, for example, if any student was not happy being away from home. An unexpected issue that some student mentors had to deal with was to comfort students who were waiting for public examination results, both before receiving them, and in some cases after. Students valued the support provided by the student mentors in this context.

3.7 Other Support Workers

A few residential Summer Schools reported that they had employed teachers from participating schools to act as night-time supervisors for the

students during the course. These teachers did not have input to academic activity but played a pastoral role. At one such Summer School, teachers received a one-off £300 payment for the week. The involvement of these teachers was welcomed by the Summer School leader as having a positive impact on student behaviour. The Summer School leader outlined the involvement of the school teachers:

'We pay teachers £300 for the week with board and accommodation free. We've found that attracts enough teachers to fill the number we need. Their commitment is from 5.00 p.m. in the day through the night to 9.00 a.m. the next morning.'

3.8 Other Providers

A range of other providers from both within and external to host institutions supported the Summer Schools.

A key in-house provider on many Summer Schools was the institution's careers service. Many institutions utilised the expertise of careers staff, especially in relation to the graduate employment and employability-related sessions. In some cases, staff provided one-to-one advice sessions for students considering entering higher education, and in others a more general approach was taken in terms of providing a careers fair for students. In addition to this, many careers services utilised existing links with local employers to provide information or activities while Summer Schools were operational. This involvement varied from company employees visiting courses to students being taken to a variety of workplaces and given a tour of company offices, and so on. Summer School leaders felt that the involvement of the institution's careers services was beneficial. Feedback from careers service personnel was equally as positive, though it was noted that course activity had taken longer to arrange than had been expected, and that this could have an impact on future involvement. On one Summer School, the careers service developed a programme for students that involved them visiting local companies, having sessions on studying abroad and managing finances while a student. While this was a comprehensive programme that students enjoyed, the Summer School leader noted that:

'It was a massive success but I have had feedback from the careers department saying that they would not do this again because it took so much effort, and I think that next year they would get the companies in to do presentations.'

Other in-house support was provided by the Student Union, the library and IT services. From feedback it was evident that institutions had been involved to a greater extent, and used more resource (in terms of staff time), than had been costed for in initial planning documentation. The effect of this is that many institutions had given support (both financial and in-kind) to ensure that Summer Schools gave students a varied and stimulating programme. There was no set pattern of funding in-house providers, and a number of these providers were not paid for their involvement.

External providers added a further dimension to programmes, and their involvement was predominantly in providing personnel to talk with students and create activities. Generally there was no financial remuneration for this activity as it was part of what companies were doing prior to the HE Summer Schools scheme, or it was building on existing contacts with HEIs. A number of multi-national companies took part in Summer School provision including Boots the Chemist, Cadbury, Spode and the Ford Motor Car Company.

Summer Schools also utilised external providers in terms of buying them in as consultants to provide programmed activity during the week. One Summer School bought in the services of a professional careers advice company, at a cost of £5,200. Other Summer Schools bought in professionals with specific expertise - for example, one hired the services of professional musicians (at a cost of £300 per day for each person). Individuals were also brought in to provide one-off sessions focusing on specific aspects of the programme. Payment for this one-off activity was about £120 per hour. The involvement of external providers did add a further dimension to the programme and was welcomed by Summer School staff and students alike. In addition

it was felt that the rates that were being paid were at a lower level than could have been charged, as one Summer School leader noted:

'The external agencies have come on board with a degree of goodwill or at very good rates that make the two weeks viable. If the whole thing was costed at commercial rates we would not remain in budget.'

Other external providers had greater involvement in Summer Schools. For example, the Science and Technology Regional Organisation (SATRO) was a key provider for a small number of Summer Schools, and in one instance the external provider ran the second week of a two-week residential course.

3.9 Training and Induction

Training and induction of Summer School staff took place at all levels of staffing. Many of the Summer School leaders had experience of managing similar activities, and their general perception was that they did not need additional training. With those leaders who did not have experience of running schemes like this, a number of HEIs did make arrangements to ensure that leaders did receive some form of training:

'Our department put a high priority on being prepared for this summer school. That meant if I felt I needed to visit [the] university or attend a helper training session for a different course, time was found to release me to go and do that. I have been able to make use of others' experience to prepare properly for the role of project manager.'

Some concern was raised by Summer School leaders about the lack of relevant information from HEFCE in terms of their role. While the perception was that specific training from HEFCE was not required, it was felt that more information could have been circulated to leaders throughout the planning and development process. Despite this concern, Summer School leaders were generally confident about the running of their Summer Schools.

The training of student mentors and postgraduate students was seen by Summer School leaders as being very important, and a majority of Summer Schools offered training for such staff. This training ranged from a series of one-hour meetings, to half or whole day courses within the institution; in one case this included sending student mentors on a first-aid course. While training for postgraduate students was based more on activity content, that for the student mentors had a more pastoral focus, as one leader described:

'We ran a training morning for all of our helpers. It consisted of an explanation of Excellence in Cities and our summer school involvement. We went through the programme and we explained safety procedures, we outlined their responsibilities with a special note on child protection issues. We also discussed how to deal with certain difficult situations, perhaps alcohol issues, etc. We brought in external speakers - the local authority advisors - who provided practical sessions...'

Other Summer Schools took a holistic approach to training and induction, providing joint activity for all members of Summer School staff, as explained by this leader:

'There were a couple of meetings for all the contributors together. I had gone and personally talked to all of them... had been on the phone to them talking about what they need and what needs booking and so on - the support they want...'

It is evident that the training and induction system was comprehensive in a majority of Summer Schools. Even Summer Schools that used teachers as night-time supervisors gave training and induction, demonstrating the extensive arrangements made by Summer School leaders to ensure that staff were fully briefed. In addition to formal arrangements, many informal meetings and telephone calls took place prior to and during courses, to ensure that members of staff liaised with each other and were able to raise issues that were of concern to them.

Training and induction was less comprehensive in relation to the institution's teaching staff. Generally, Summer School leaders perceived that this group did not need any training/induction as they were used to giving lectures and therefore it would not have been appropriate for them to suggest any. While many lecturers felt that they did not need training/induction, a sizeable minority described how they had found their involvement challenging

because of their uncertainty about what they should actually be teaching and what level the academic content should be at. One lecturer noted that no member of Summer School staff had contacted or briefed her and therefore she was unsure if her input was at the correct level or if it fitted into the programme in any meaningful way. There was clearly a tension between leaders wanting to ensure that activity was pitched at the correct level and not wanting to be seen to be interfering in preparation of teaching material. Generally leaders avoided direct training or induction for lecturers but did liaise with departmental coordinators and student mentors to assess the suitability of activity. In addition to this, it was evident that different lecturers and departments needed different levels of training/induction and that this was a further reason for not having a blanket approach, as one Summer School leader noted:

'We have had to nurture some departments, but with other departments it would have been like teaching them to suck eggs and we didn't want to insult them as they know what they are doing... we have almost done it on an individual department requirement.'

If training and induction for lecturers had been more comprehensive, some of the teaching and learning activity that did not stimulate student interest might have been avoided. The fact that lecturers did not feel that they needed such training/induction, when clearly some did, was a feature of a number of Summer School courses.

Chapter 4 **Outcomes**

4.1 Take-up of Places

There was considerable variation in the take-up of places at the Summer Schools. A few Summer Schools managed to achieve a 100 per cent take-up of places that had been offered to and accepted by identified students, while others had only around 50 per cent of their offered and accepted places taken up. The fact that a few Summer Schools were first unable to recruit students to fill all available places, and then found that many students who had been recruited failed to turn up on the first day was a disappointing experience. As students failed to inform the Summer Schools that they would not be attending, the Summer Schools had no time to find replacement students. Summer Schools that were held well into the holiday period and those that had recruited students from areas a considerable distance away tended to be those that experienced the most difficulties in this respect.

The Summer Schools that were successful in achieving a high take-up rate did so because they had put in place procedures for personal communication with recruited students at key points before the start and/or had arranged escorted travel from students' home cities to the Summer School site and back again.

One Summer School, which catered for students from the local area, achieved a 100 per cent take-up rate mainly as a result of holding a meeting for students and their parents at the HEI a few weeks before the start. At this meeting, the Summer School staff explained the purpose of the Summer School, described the programme, showed the premises and facilities that would be used, and discussed the concerns of students and parents. Other Summer Schools with high levels of take-up had procedures where students were directly contacted by Summer School staff in the period leading up to the start, which made it possible to replace those who had decided not to attend.

4.2 Summer School Providers' Perceptions of the Students

At each HEI, the Summer School leader and academic staff were asked their opinion as to whether students attending the Summer School would be successful if they took higher education courses, and to give reasons why they may or may not be successful. The overall perception was that the students generally were of high ability, as in the words of one Summer School leader:

'From the feedback I'm getting from the academics they [the students] are 'super bright'. The lecturers have been very impressed with their response levels in the sessions. They've said they would have been happy with that response from first year undergraduates.'

The view of Summer School providers was that the criterion of high ability had been met, and that the majority would do well in terms of achievement should they embark on an appropriate higher education course. As well as references to the perceived intelligence or ability of the students, Summer School providers also made positive comments about students' confidence, communication skills, enthusiasm, creativity and general attitude to courses.

In cases where students were not so motivated, it was mainly a result of there being a mismatch between students' interests or A-level subjects and the curriculum content of the Summer School. Also, on the negative side, a few Summer School providers commented on students' lack of concentration and stamina. As one academic member of staff explained:

'My impression is that they're very talented, but their main lack is concentration, long attention spans. But they're still very young, and we had asked them to do very long days.'

This view was borne out by observations of sessions and activities. Researchers saw a number of lectures, especially ones in the morning, through which a sizeable minority of students dozed. Many students themselves commented that they found concentration waning through lectures that were longer than they were used to.

Summer School staff were also asked about their perceptions of the students in relation to any of the other criteria that had been specified in the recruitment of students. There were concerns expressed by many regarding the extent to which

students came from families with no background in higher education. Several providers expressed surprise at the proportion of students whose parents had degrees. Also, some Summer School providers had anticipated that students would be undecided about whether they wanted to pursue a higher education course. In discussions with students, they discovered that many, especially those in Year 12, had already decided that they would be applying for a higher education course after their school studies, though many were undecided about the type of course.

A few Summer School leaders spoke about student preconceptions of higher education or the particular institution where the Summer School was to be held, and fears that they would not fit in. Words like 'snobby' and 'stuffy' had been used, but these preconceptions were said to have been quickly dispelled after the first day or so. This issue is discussed in more depth in Section 4.4.

4.3 Reported Successes and Operational Difficulties

4.3.1 Successes

NFER researchers were briefed to identify successes and operational difficulties experienced by the Summer Schools through interviews with staff and students, and through observation of sessions and activities. The reports completed by Summer Schools (i.e. *Annex B - Report on HE Summer School to HEFCE*) - which included sections to do with successful practices and outcomes, and difficulties encountered - have also been referred to in writing this section of the report. Those aspects of Summer Schools enjoyed the most by students are shown in Table 5.7 in Chapter 5.

Across the Summer Schools, successes related to: the content of courses, the structure and organisation of the programme, the staff employed - especially the use of student mentors - the domestic arrangements, the involvement of external partners, the developing relationship with the local community, and the perceived impact on the students. Some of the more common successes are described below.

Interactive sessions and activities

With regard to the academic programme, sessions and activities that were planned to entail a high level of student participation were the most successful in terms of motivating the students and eliciting their attention. Such sessions and activities included seminars on topical issues (e.g. GM crops, the James Bulger case and media coverage, the Macpherson report), team-work challenges, often leading to a final presentation, practical workshops, and some lectures that included opportunities for questions and answers.

Development of skills and expertise

Many Summer Schools reported perceived gains in students' skills and expertise, as did the students themselves. There were opportunities for students to learn in new or unfamiliar ways, such as via multimedia technology or through team-work exercises, to gain knowledge in areas that brought together different subject disciplines, and to use resources and equipment (e.g. computer-aided design software, hi-tech laboratory equipment) with which they had no previous experience. For Summer Schools offering specialist provision (e.g. music, dance), students typically planned and practised their own performances, leading to a presentation in front of an audience on the final day. An art-focused Summer School included work with unfamiliar materials and the development of new art techniques, which the students found very satisfying. A few Summer Schools had an academic programme that led to an accreditation, either at the end of the course or via follow-up work at schools, such as the CREST Gold or Silver Award. Recognising students' work in this way was an additional stimulus for participants.

'Ice-breaking' activities

Many Summer School leaders and staff reported that students were initially very anxious at the start of courses as to what was expected of them and whether they would fit in with the other students. Indeed, the pre-course questionnaires showed that around 60 per cent of students were anxious and only about 20 per cent were confident on the first day. Generally, Summer Schools were very

successful in addressing students' concerns at an early stage. Many held 'ice-breaking' activities, often involving team games, usually with participation from student mentors, with the purpose of getting the students to gel collectively and to create an atmosphere in which learning would be seen as an enjoyable experience.

Coherent academic programmes leading to final presentations

Summer School academic programmes constructed around a central theme (e.g. working in cities, advertising through film) that led to final presentations appeared to capture students' interest more than did programmes covering a number of disparate areas (see Recommendation 7 in Chapter 6). Furthermore, preparing for a presentation (or a performance in the case of 'specialist' Summer Schools) on the final day also appeared to encourage students to engage with the content of the sessions. In order to provide a coherent programme, academic staff recognised that it was necessary to plan together as a team so that each was aware of the programme as a whole and the intended student outcomes.

Student mentors

Summer Schools recruited their own students, often final year undergraduates or those who had just completed PGCE courses, to work as student mentors. (N.B. A variety of names were used for this role including student helpers, student ambassadors, buddies and team leaders.) Student mentors played a valuable role in supporting the Summer School students and explaining aspects of student life in higher education, and proved to be good role models. Many students felt anxious about the Summer School on the first day but the presence and work of the student mentors was reassuring. Many Summer Schools operated a system in which a student mentor had responsibility for a small group of students throughout the entire course, making sure that the students were 'on task' and were clear about what behaviour and performance was expected. Student mentors at some Summer Schools planned and ran social/recreational activities. Typically, student mentors had received training for their role, and approached their duties with enthusiasm and a high level of responsibility. Internal evaluations conducted at many of the Summer Schools revealed that the students valued the contribution made by student mentors and considered it to be a major factor in their enjoyment of the course.

Improved links with the community

As an outcome to planning and running the Summer School, many HEIs reported improved links with the local community. Links were made or strengthened with LEAs and local schools as a result of designing the Summer School course and recruiting students. In several cases it was thought that the provision of this year's Summer School would provide the impetus for a number of joint projects with LEAs and local schools, such as 'taster' sessions or weekend courses at the HEI. Years 9 and 10 were frequently referred to as the most likely target groups in this respect. Improved links also came about through graduate employment and employability-related sessions. Here, many Summer Schools arranged visits to local companies or public service providers, or invited them to the institution, for sessions at which students received information about professions and necessary qualifications, and sometimes spoke to young graduates beginning their careers. A key link was also made with the actual Summer School participants and their families, with many Summer Schools reporting the importance of the HEI becoming better known by local people and also having the opportunity to promote their courses and facilities.

4.3.2 Operational difficulties

While the Summer Schools generally showed a high level of success, with this being the first year of the scheme there were a number of operational difficulties experienced across the Summer Schools. Some of the more common operational difficulties are described below.

Intensity and length of each day's programme

HEIs ran intensive courses. In the case of residential Summer Schools, students' time from breakfast to late in the evening was occupied with academic sessions, social/recreational activities, etc. In

practice, Summer School programmes were too intensive for the majority of students, who were more familiar with working in shorter sessions and having regular breaks. Many students were tired, especially in the mornings and for after-dinner activities, and so did not engage with some sessions and activities as much as desired. Moreover, a few non-residential Summer Schools recognised that some 'local' students had to travel long distances each day, which added to their tiredness. This was particularly evident during morning lectures at some Summer Schools during which some students dozed. A slightly longer course but with shorter, less intensive days may be a better model.

The balance between treating students as adults and having responsibility for their welfare

Achieving this balance was found to be particularly challenging for most Summer Schools. Summer School leaders had the same duty of care as a careful parent for those students under the age of 18, who comprised the overwhelming majority of students. Summer School leaders took this responsibility very seriously and most put in place procedures by which students were closely supervised at all times. A substantial number of students were resentful of the level of supervision, feeling as though they were being treated *'like little children'*. At some Summer Schools, students were escorted in small groups from site to site and were not allowed off campus at any time. Summer Schools that carefully explained their legal responsibilities to students at the outset seemed to have more success at creating acceptance from students as to the need for supervision than those Summer Schools which basically ignored any explanation of the issue. On the conclusion of courses, several Summer School leaders felt that they had been over-protective of students, the procedures had been too obtrusive, and that in future they would allow more freedom, but with student rights and responsibilities clearly outlined.

Some lectures

There is a place for lectures in the academic programme and these can be a valuable experience for students. However, a common experience for students was that lectures were too passive, too long and often unrelated to the rest of the programme. In the words of one student responding to the question in the pre-course questionnaire about how the Summer School could be improved: *'By making some lectures much more interesting. Expecting 16 to 17 year olds to concentrate on one subject for one to two hours is very difficult. I support my case by watching people fall asleep in the second hour.'* For lectures to be successful for students of this age, they need to be shorter, include some active participation from students (certainly by the inclusion of question and answer periods) and link with a main theme running through the Summer School programme. Also, lectures that were interspersed with demonstrations, such as was the case for some chemistry lectures, were generally well-received.

Other difficulties

There were also difficulties in the operation of some Summer Schools as a consequence of the composition of the group of students recruited. For instance, several Summer Schools commented on the difficulty of providing courses appropriate for both Year 11 and 12 students. This was felt by Summer School staff to be related to differences in students' academic levels, maturity and perspectives on higher education and career ambitions. This will not be a problem from 2001 when the entire scheme will focus on Year 11 students only. Some Summer School leaders noted that they had received unexpected large numbers of students from single schools. This led to problems with cliques of students forming, some individual students feeling isolated, and less student involvement in many activities than had been anticipated. It appeared that some students had 'signed up' for courses, mainly because a friend had done so. These students were not particularly interested in the content of the course or what they might gain from the experience. Again, this is another matter to be addressed in future years. It is intended that Gifted & Talented Coordinators in schools will guide students to make considered choices of Summer Schools that are based on appropriate factors.

4.4 Addressing Students' Preconceptions of Higher Education

The central purpose of the HE Summer Schools scheme was to provide students with a higher education experience that would encourage them to apply to an HEI or to consider a wider range of institutions and/or subjects after they had completed their A-level or equivalent studies. As discussed in Chapter 5, students as a whole met the criteria of coming from social groups typically under-represented in higher education. As such, many of the students initially had limited views or misconceptions about studying at higher education level, the courses that were available, what it would be like to be an undergraduate, and how a degree would be advantageous. From interviews with students, the impression formed was that their parents also had similar limited views or misconceptions. There were exceptions of course, such as those parents who had attended HEIs themselves.

A common preconception held by students was that HEIs were 'stuffy' or 'snobby'. Such views were especially evident concerning some of the institutions with demanding entry qualifications. Some students attending Summer Schools at the smaller, less well-known institutions were under the misconception that they only provided teacher training courses. There were also stereotypical views held on what being an undergraduate was like, ranging from a life of socialising and drinking excessive amounts of alcohol to one that entailed long hours reading books in libraries in independent study.

Certain aspects of Summer School courses were very successful at widening students' views or dispelling misconceptions. The fact that courses included a range of teaching and learning methods, including discussion groups and team-work activities, dispelled the myth that higher education is delivered almost entirely through lectures and is a solitary experience.

The graduate employment and employability-related sessions were successful in explaining career opportunities associated with different courses, as well as outlining the range of courses available in higher education. Year 11 students in particular were surprised at the variety of courses available across HEIs or specifically at the institution where the Summer School was held.

The involvement of undergraduates working as student mentors in Summer Schools was very effective in broadening students' horizons. Students were able to talk informally with the student mentors about their experiences of higher education, their backgrounds and aspirations. Several Summer Schools reported that they had deliberately recruited student mentors whose social and cultural backgrounds mirrored those of the students, so that the student mentors might be viewed as good role models.

One Summer School in the 'short visits' strand of the evaluation held a pre-meeting for students and their parents at the institution to make face-to-face contact, to outline the course and the facilities and to respond to any concerns. While this strategy was extremely successful in gaining excellent attendance at the Summer School, it also enabled the institution to showcase its premises and facilities. In fact, many HEIs saw the Summer School as a means by which the institution could be promoted within the local community.

4.5 Student Behaviour

Student behaviour regarding their engagement with sessions and activities in the academic programme was described by Summer School staff as good for the overwhelming majority of students. Interaction with other students and staff was also described as good throughout the Summer Schools, largely as a result of 'ice-breaking' activities which helped students overcome their initial anxiety or shyness. Activities which entailed students working in groups, often in practical ways, appeared to create high levels of involvement in the course content. Groups that brought together students from several schools, rather than groups dominated by students from a single school, were felt to be the most productive. There were reports from some Summer Schools of students being unexpectedly noisy, but this was put down to them being excited rather than uninterested.

An area where student behaviour was disappointing was in their reaction to lectures. Lectures at many of the Summer Schools did not motivate the students, with an air of boredom being clearly apparent. There was some evidence that students failed to ask questions at the end of those lectures that had actually inspired them simply because they lacked confidence by being among people they did not know.

Most Summer Schools explained the rules and regulations to the students at the outset, often in the form of a 'Code of Behaviour', which was included in student information packs. While the majority of students followed the rules and regulations set out, a small minority wanted to see how far they could 'stretch' the rules. This was more evident at residential Summer Schools, where some students left the campus without permission or stayed up beyond the time when they were expected to be in their rooms, or tried to enter the accommodation areas of the opposite sex, from which they had been specifically barred. The presence of night-time supervisors, many of whom were teachers at the participating schools, ensured that misbehaviour of this nature was quickly and appropriately dealt with. Other aspects of what might be considered as misbehaviour appear to be more a matter of the students not knowing what was expected of them rather than any deliberate rudeness, such as talking during lectures. Another example concerned a visit to a theatre when the group of students sat where they chose, not realising that the ticket specified a particular seat, to the consternation of the Summer School staff.

There were a few serious incidents of misbehaviour across the Summer Schools, which is not surprising considering the number of students involved and their diverse backgrounds. Some students were removed from courses and escorted home for drinking alcohol, physically assaulting other students or racist behaviour. A few Summer Schools reported incidents of theft of staff property, but without discovering the culprits. Making the decision to remove a student from a course was a huge disappointment for the Summer School, but was considered imperative in order to maintain credibility with the other students. At least one Summer School was considering invoicing parents for the cost of escorting students home.

It should be emphasised that the behaviour of the vast majority of students was exemplary throughout courses, that problems arose only with a tiny minority, and that these problems were dealt with promptly. Where rules and regulations were explained at the outset most students were prepared to accept the constraints, as exemplified by this student's comments:

'When we're in a position like this where people are responsible for us as well as ourselves, it's not fair to behave as if you're at home, because we're not at home. There is a slightly different relationship going on and I respect that if I'm told in this situation that this is how it's got to be, then that's fair enough, I understand that.'

Chapter 5 Results of the NFER Questionnaires

5.1 The NFER Pre- and Post-Course Questionnaires

5.1.1 Aims

The questionnaires were designed to answer two main questions. Firstly, were the students of high ability and from groups who typically do not choose to go on to higher education (i.e. was the intended target group recruited)? Secondly, did the Summer Schools have an impact on students' attitudes to learning, especially with regard to higher education aspirations (i.e. did the Summer Schools have the desired effect of encouraging students to consider and aspire to entry to a higher education course and/or consider a wider range of institutions or subjects than they would have otherwise)?

5.1.2 Content of questionnaires

The first three main sections of each questionnaire were:

Section 1	Your Views About Learning	8 statements
Section 2	Your Views About Your School Work	6 statements
Section 3	Your Views About the Summer School	8 statements

Responses were sought to the 22 statements in each questionnaire through the use of a five-point scale: strongly agree, agree, not sure, disagree, and strongly disagree. The same statements were asked in the pre- and post-course questionnaires (with slight amendments for the post-course questionnaire to make the statements relevant).

In both the pre- and post-course questionnaire, it was explained that the questions had no right or wrong answers; the intention was to find out what students truthfully thought. The statements in each of the first three main sections for both questionnaires were purposefully arranged so that positive and negative statements were intermingled. This was done to avoid the situation that some participants might give entirely positive responses because they felt it was expected of them.

A fourth main section collected information about the student, including gender, ethnic group, number of books in home, likelihood of going on to higher education, home postcode and qualifications obtained or expected. The number of books in the home variable has been used in many previous studies as a proxy measure for the educational/cultural level of the home. This section also included one open-ended question in the pre-course questionnaire asking students what they were looking forward to most at the Summer School, and two open-ended questions in the post-course questionnaire asking what they had enjoyed most and how the Summer School could be improved. The post-course questionnaire also requested contact details for students who were prepared to be contacted in future years regarding how their education plans were developing.

5.1.3 Administration

Summer School leaders were asked to administer the pre-course questionnaire to students on the first day of the Summer School. The post-course questionnaire was to be administered on the last day.

A representative sample of 19 HEIs was asked to administer the questionnaires (see Appendix 2). Each questionnaire was designed to take no longer than 15 minutes to complete. Of these 19 HEIs, only one failed to administer and return questionnaires to NFER within an appropriate time period for coding and analyses.

5.1.4 Coding and analyses

Only those students in Years 11 and 12 from EiC LEAs who had completed both a pre-course and a post-course questionnaire were included in the final analyses. A total of 1,028 pre-course questionnaires, and 912 post-course questionnaires were administered and returned. Of these, there were 779 matched pairs for Year 11 or 12 students from EiC LEAs. A total of 22 of the 25 EiC LEAs were represented in the sample of matched pairs.

The main reason why there were unmatched questionnaires was, according to Summer School leaders, because some students did not attend the final session of their Summer School. Also, a number of students took the post-course questionnaire home for completion and did not return it. Overall, the number of matched questionnaires was considerably fewer than anticipated, as a consequence of Summer Schools running with fewer students than planned. There was also a total of 50 pairs of matched questionnaires that were not included in the final sample as they were for students from LEAs not encompassed by the EiC initiative.

Mean scores for each statement in each of the first three main sections for the whole sample, and for groups of students, were calculated by assigning +2 to 'strongly agree' responses, +1 to 'agree' responses, 0 to 'not sure' responses, -1 to 'disagree' responses and -2 to 'strongly disagree' responses. The difference between the pre-course and post-course means is regarded as the impact of the Summer Schools with regard to that particular statement. The level of significance between each pair of means was calculated using paired-sample t-tests. Analyses were carried out for the whole sample, and for groups of students (e.g. males and females separately).

Seven of the 22 questionnaire statements were negative statements (e.g. *'I quickly lose interest if new topics are difficult'*). To make interpretation of the results easier, for these statements 'strongly agree' responses have been transposed with 'strongly disagree' responses, and 'agree' responses have been transposed with 'disagree' responses. This means that for **all** statements an increase in mean score pre-course to post-course indicates a positive impact regarding the attribute addressed by the statement. For example, for the overall sample, the increase in mean score from 0.57 pre-course to 0.71 post-course for the statement *'I quickly lose interest if new topics are difficult'* indicates that significantly more students are interested to learn new topics despite their difficulty, as an outcome of the Summer Schools.

The open-ended responses (one question in the pre-course questionnaire, and two in the post-course questionnaire) were coded so that a quantitative analysis could be carried out. Student comments of a similar type received the same code. For each question, many students made more than one comment. In such cases, all comments were coded.

In order to obtain a clearer picture of the questionnaire outcomes, it was necessary to gather together statements addressing related attitudes. This was done by means of a factor analysis. Factor analysis is a statistical technique that seeks out groups of related statements by identifying patterns of similar responses and replaces them with a smaller number of new variables or factors. A factor analysis was performed on each of the first three main sections of the questionnaires, each analysis using the combined pre-course and post-course results. This enabled factors to be extracted, and then factor scores to be computed.

5.2 Results of the Questionnaires

5.2.1 Characteristics of the students

Table 5.1 below shows various characteristics of the students in the overall sample used in the analyses. The information was obtained from the front cover of the questionnaires and from Section 4: Information About Yourself.

Considerably more females than males attended the Summer Schools (71 per cent females, 29 per cent males). The reasons for this are unknown. It may be that more male students than female students had commitments during the summer such as holiday jobs or that females were identified by teachers in school as potentially gaining more from the experience, or a combination of these and other

Table 5.1 **Characteristics of the students completing questionnaires (N = 779)**

Year group:	Year 11	389 (50%)
	Year 12	390 (50%)
Gender:	Males	229 (29%)
	Females	549 (70%)
	Missing	1 (<1%)
Summer School type:	Residential	445 (57%)
	Non-residential	325 (42%)
	Missing	9 (1%)
Ethnic group:	White	395 (51%)
	Black-Caribbean	36 (5%)
	Black-African	53 (7%)
	Black-Other	21 (3%)
	Indian	50 (6%)
	Pakistani	87 (11%)
	Bangladeshi	32 (4%)
	Asian-Other	28 (4%)
	Chinese	16 (2%)
	Other ethnic group	56 (7%)
	Missing	5 (1%)
Number of books in home:	0 - 25 books	140 (18%)
	26 - 100 books	232 (30%)
	101 or more books	406 (52%)
	Missing	1 (<1%)

factors. Data collected by UCAS on the gender of home applicants accepted to degree courses in 1999 showed that males comprised 46 per cent and females 54 per cent of this group. While males are slightly under-represented on undergraduate courses, they were substantially under-represented at the Summer Schools.

A slightly greater percentage of male students than female students attended residential Summer Schools (males - 61 per cent, females - 57 per cent). Interestingly, there were substantial differences between white, black and Asian students with regard to the proportions who attended residential Summer Schools (white - 70 per cent, black - 55 per cent, Asian - 37 per cent). The relatively low percentage of Asian students residential Summer Schools is mainly a result of a substantial proportion of Asian female students attending non-residential Summer Schools. This may be a deliberate choice on the part of the students or their families, or both.

With regard to ethnic group, 51 per cent who indicated an ethnic group were white, 14 per cent were black (comprising Black-Caribbean, Black-African and Black-Other) and 28 per cent were Asian (comprising Indian, Pakistani, Bangladeshi, Asian-Other and Chinese). Comparing these percentages with those collected by UCAS on the ethnic origin of home applicants accepted to degree courses in 1999 (white - 85 per cent, black - 3 per cent, Asian 10 per cent), it appears that the Summer Schools recruited a substantially greater proportion of black and Asian students than the proportion who started degree courses at HEIs in England the previous autumn (which may largely be related to the fact that the scheme is focused on EiC LEAs).

The number of books in the home showed that 18 per cent of the sample indicated 25 or fewer books, 30 per cent indicated 26-100 books and 52 per cent indicated 101 or more books. Comparing these percentages with those corresponding to Year 9 students in England taken from the Third International Mathematics and Science Study (TIMSS) in 1995 (25 or fewer books - 19 per cent, 26-100 books - 27 per cent, 101 or more books - 54 per cent), it appears that those attending the Summer Schools were not substantially less or more advantaged, with regard to the educational/cultural level of the home, than young people in England overall.

In the pre-course questionnaire, students were asked to indicate the GCSE or GNVQ qualifications and grades they had obtained or expected to obtain. Of the 6,138 qualifications indicated that were codeable, 6,081 of them (99 per cent) were GCSEs (either dual award, or full course or part course). The remaining 57 qualifications were GNVQs at various levels. A total of 730 students indicated that they had obtained or expected to obtain GCSEs. Of these, 692 students (95 per cent) had either obtained or expected to obtain five or more A* to C grades. This suggests that students as a whole were of high ability.

In the post-course questionnaire, students were asked to give their mother's/guardian's and father's/guardian's occupations. The given occupations were coded according to an adaptation of the Standard Occupational Classification used in many government surveys. A further stage of this study grouped the codes together into three categories:

Category 1	Social classes I (Professional), II (Intermediate) and IIIN (Skilled non-manual)
Category 2	Social classes IIIM (Skilled manual), IV (Semi-skilled) and V (Unskilled)
Category 3	Housewife/Househusband, Unemployed, Retired or Deceased

Of the mothers/guardians who were employed and for which there were codeable responses, 33 per cent were from Category 2. The corresponding percentage for father's/guardian's occupation was 46 per cent. According to UCAS data for the social class of home applicants accepted to degree courses in 1999, 27 per cent of such students were from social classes IIIM, IV or V. The percentages for the Summer School students are greater. The figure for social class based on the father's/guardian's social class (i.e. 46 per cent) is more in line with that derived from the 1991 Census (the last available

data) which showed that 45 per cent of the UK population over the age of 16, with social class known, were from social classes IIIM, IV or V.

In the post-course questionnaire, students were asked to give details regarding universities, polytechnics or higher education colleges attended by their parents or guardians. Eighty-seven students indicated that their mother/guardian only had attended a higher education institution, 92 that their father/guardian only had done so, and 198 that both parents/guardians had done so. A total of 331 students indicated that neither of their parents/guardians had attended a higher education institution. Of the students who gave a definite response (i.e. ignoring missing data and 'Don't Know' responses), 53 per cent indicated that either or both of their parents had attended a higher education institution.

Both the pre- and post-course questionnaire included a question asking students to indicate on a four-point scale (definitely, probably, probably not, definitely not) whether they thought they would go to a university or other higher education institution after completing A-levels or Advanced GNVQs. The responses showed a significant difference at the 5 per cent level pre- to post-course for the whole sample. Pre-course, 523 students indicated that they would definitely go and 241 that they would probably go to a university or other higher education institution. Post-course, the corresponding figures were 569 for definitely and 194 for probably. Student responses by each year group are shown in Table 5.2.

Table 5.2 **Students' intentions to attend a university or other higher education institution after completing A-levels or Advanced GNVQs**

		Year 11	Year 12
Start of Summer School	Definitely	223 (57%)	300 (77%)
	Probably	157 (40%)	84 (22%)
	Probably not	8 (2%)	5 (1%)
	Definitely not	1 (<1%)	1 (<1%)
End of Summer School	Definitely	257 (67%)	312 (80%)
	Probably	122 (32%)	72 (19%)
	Probably not	7 (2%)	5 (1%)
	Definitely not	0 (0%)	0 (0%)

Table 5.2 shows that as a group Year 12 students were more definite in their higher education aspirations than were Year 11 students both at the start and end. The Summer Schools had a greater potential for influencing Year 11 students in this respect, which proved to be the case with an increase in the percentage of 'definite' students from 57 per cent to 67 per cent.

In summary, the Year 11 and 12 students as a whole were of high ability, included substantial numbers from minority ethnic groups and were more typical of the social class composition of England than were students accepted to degree courses in 1999. Also, the findings about the educational/cultural level of the home of students showed that they were from backgrounds that reflected the general picture relating to young people in England overall. In these respects, the students may be regarded as meeting the implicit criteria of the intended target group. However, the data showed that around half the students had one or both parents who had attended university, polytechnic or college. In this respect, a substantial number of the students may be regarded as not meeting an implicit criterion. Also, an overwhelming majority of both Year 11 and Year 12 students were either definitely or probably intending to go on to higher education at the start of the Summer School, with this aspiration becoming even more positive at the end.

5.2.2 Section 1: Your Views About Learning

In Section 1 of the pre-/post-course questionnaire, there were eight statements covering the student's views about learning. Seven of these statements showed a significant difference between pre- and post-course mean scores at the 5 per cent level. This means that the likelihood of the difference occurring by chance is less than five in 100. These statements and the mean scores are shown in Table 5.3 below.

Table 5.3 **All students – 'Your Views About Learning' statements that showed a significant difference between pre- and post-course mean score (N = 779)**

Statement	Pre-Course Mean Score	Post-Course Mean Score
On the whole, I find learning enjoyable.	1.04	1.15
I like to do the minimum amount of work necessary for school. *(negative statement)*	0.66	0.80
The things I learn are important to me.	1.26	1.34
I quickly lose interest if new topics are difficult. *(negative statement)*	0.57	0.71
What I learn will be useful in future.	1.28	1.38
I like to solve problems myself rather than be told how to do it.	0.77	0.83
It would be helpful to take a higher education course (when I'm 18 or older) for the career I want to follow.	1.52	1.58

A positive mean score indicates that more students agree or strongly agree with the statement than the number who disagree or strongly disagree. An increase in a mean score pre- to post-course indicates a general movement along the scale in the direction of strongly agree. For instance, the change in mean score from 1.52 to 1.58 for the statement *'It would be helpful to take a higher education course (when I'm 18 or older) for the career I want to follow'* mainly results from 237 students agreeing and 479 strongly agreeing at the start of the Summer School and 194 agreeing and 525 strongly agreeing at the end. Generally speaking, students became more convinced about the usefulness of taking a higher education course as an outcome of attending the Summer School.

The increase in mean score from 0.57 to 0.71 for the statement *'I quickly lose interest if new topics are difficult'* mainly results from 411 students disagreeing and 75 strongly disagreeing at the start of the Summer School and 396 disagreeing and 127 strongly disagreeing at the end (see Section 5.1.4 for an explanation of the transposing of responses). Generally speaking, students were more interested to learn new topics despite their difficulty as an outcome of attending the Summer School.

The significant changes in mean score pre- to post-course for these statements suggest that students overall were more appreciative of the value of learning at the end of the Summer School than they were at the start.

5.2.3 Section 2: Your Views About Your School Work

In Section 2 of the pre-/post-course questionnaire, there were six statements covering the student's views about school work. Five of these statements showed a significant difference between pre- and post-course mean scores at the 5 per cent level. These statements and the mean scores are shown in Table 5.4 below.

Table 5.4 **All students – 'Your Views About Your School Work' statements that showed a significant difference between pre- and post-course mean score (N = 779)**

Statement	Pre-Course Mean Score	Post-Course Mean Score
On the whole, school work is worth doing.	1.31	1.39
Last term I enjoyed learning many new things. / I am looking forward to learning many new things when I go back to school.	0.94	1.12
Last term I was not bothered about trying to do my best in lessons. / I am not bothered about trying to do my best in lessons when I go back to school. *(negative statement)*	1.12	1.31
Homework is important in helping me to do well.	0.98	1.06
I think last term's work was mostly boring. / I think next term's work will be mostly boring. *(negative statement)*	0.58	0.77

The significant changes in mean score pre- to post-course for these statements suggest that students overall are even more positive about the value of school work at the end of the Summer School than they were at the start.

5.2.4 Section 3: Your Views About the Summer School

In Section 3 of the pre-/post-course questionnaire, there were eight statements covering the student's views about the Summer School. All eight statements showed a significant difference between pre- and post-course mean scores at the 5 per cent level. These statements and the mean scores are shown in Table 5.5 below.

Students overall expected the Summer School to be enjoyable, but their responses showed that they found it to be much more enjoyable than expected. The increase in mean score from -0.42 to 0.63 for '*I*

Table 5.5 **All students - 'Your Views About the Summer School' statements that showed a significant difference between pre- and post-course mean score (N = 779)**

Statement	Pre-Course Mean Score	Post-Course Mean Score
I think the Summer School will be enjoyable. / The Summer School was enjoyable.	0.98	1.38
I am a little anxious about going to the Summer School. / I was glad when the Summer School finished. *(negative statement)*	– 0.42	0.63
I think there will be people like me at the Summer School to make friends with. / There were people like me at the Summer School who I made friends with.	0.86	1.33
I think the Summer School will help my school work.	0.62	0.79
The Summer School is a good idea for me. / The Summer School was a good idea for me.	1.17	1.34
I hope we are encouraged to think and learn for ourselves at the Summer School. / We were encouraged to think and learn for ourselves at the Summer School.	0.59	0.82
I hope we are encouraged to ask lots of questions at the Summer School. / We were encouraged to ask lots of questions at the Summer School.	0.80	1.04
I think the Summer School will help me to decide whether to take a higher education course after my A-level or Advanced GNVQ studies. / The Summer School has helped me to decide whether to take a higher education course after my A-level or Advanced GNVQ studies.	0.86	0.76

am a little anxious about going to the Summer School' / *'I was glad when the Summer School finished'* shows that most students were anxious about attending the Summer School, but on the final day the majority were disappointed that it had finished. Students anticipated that they would make friends with people similar to themselves at the Summer School. The extent to which they made friends greatly exceeded their expectations. Other areas in which student expectations were exceeded included the extent to which they regarded the Summer School as helping with their school work, their perception of it as being a good idea for them, and the extent to which they were encouraged to think and learn for themselves and to ask lots of questions.

Most students expected attendance at the Summer School to be helpful in them deciding whether to take a higher education course after A-level or Advanced GNVQ studies. On the final day, most students felt that that they had been helped with this decision, but the results show that this was not to the extent they had anticipated. The data indicate that a significantly greater proportion of Year 11 students than Year 12 students regarded themselves as helped by the Summer School in this respect. This may be a result of Year 12 students in general being more convinced that they would be embarking on a higher education course than were Year 11 students.

5.2.5 Your Views About Learning – factor analysis

The factor analysis of this section revealed two factors. The first factor was labelled 'Appreciation of personal benefits from education' and comprised the following four statements:

Factor 1: Appreciation of Personal Benefits from Education

The things I learn are important to me.

What I learn will be useful in future.

On the whole, I find learning enjoyable.

It would be helpful to take a higher education course (when I'm 18 or older) for the career I want to follow.

There was a highly significant positive change ($p<.001$; that is, the likelihood of the difference occurring by chance is less than one in one thousand) for the whole sample in mean factor score pre- to post-course on their appreciation of personal benefits from education as a result of attending the Summer Schools (i.e. a highly significant increase in students' appreciation of personal benefits from education).

The second factor identified was 'Motivation to Learn' and comprised the following four statements:

Factor 2: Motivation to Learn

I quickly lose interest if new topics are difficult. *(negative statement)*

When learning is hard I usually give up. *(negative statement)*

I like to do the minimum amount of work necessary for school. *(negative statement)*

I like to solve problems myself rather than be told how to do it.

There was a highly significant positive change ($p<.001$) for the whole sample in mean factor score pre- to post-course on their motivation to learn as a result of attending the Summer Schools (i.e. a highly significant increase in students' motivation to learn).

Analyses were also performed to identify whether there were any significant differences between particular groups of students on the extent to which mean factor scores changed pre- to post-course for each of the two factors. The groups considered were:

Males/females

Year 11/Year 12

White/black/Asian

Residential/Non-residential

Social class categories by mother

Social class categories by father

Students with neither parent who had attended an HEI/Students with one or both parents who had attended an HEI

For both factors there were no significant differences between particular groups of students. In conclusion, the Summer Schools had roughly the same impact on students irrespective of their gender, year group, ethnic group, social class, parental experience of higher education or whether students were resident at Summer Schools or not. The analyses showed that the Summer Schools had a significant impact on all groups of students.

5.2.6 Your Views About Your School Work – factor analysis

In this section, all six statements together formed a factor called 'Appreciation of Value of School Work'.

Factor 1: Appreciation of Value of School Work

Last term I enjoyed learning many new things.

On the whole, school work is worth doing.

Homework is important in helping me to do well.

I think last term's work was mostly boring. *(negative statement)*

Last term I was not bothered about trying to do my best in lessons. *(negative statement)*

It doesn't matter if my school exam results are below what I'm capable of. *(negative statement)*

(N.B. Only pre-course statements appear here)

There was a highly significant positive change ($p<.001$) for the whole sample in mean factor score pre- to post-course on their appreciation of the value of school work as a result of attending the Summer Schools (i.e. a highly significant increase in students' appreciation of school work). Interestingly, there was a significantly greater impact on Year 11 students than on Year 12 students. This outcome may be related to the finding that the Summer Schools had a greater impact on Year 11 students than on Year 12 students with regard to influencing their intentions to attend a university or other higher education institution after completing A-levels or Advanced GNVQs.

5.2.7 Your Views About the Summer School - factor analysis

The factor analysis of this section revealed two factors. The first factor was labelled 'Usefulness of Learning' and comprised the following six statements:

Factor 1: Usefulness of Learning

I think the Summer School will help my school work.

I hope we are encouraged to think and learn for ourselves at the Summer School.

I think the Summer School will help me to decide whether to take a higher education course after my A-level or Advanced GNVQ studies.

The Summer School is a good idea for me.

I hope we are encouraged to ask lots of questions at the Summer School.

I think the Summer School will be enjoyable.

(N.B. Only pre-course statements appear here)

There was a significant positive change ($p<.05$) for the whole sample in mean factor score pre- to post-course on their view regarding the usefulness of learning as a result of attending the Summer Schools (i.e. a significant increase in regarding learning as useful). There was a significantly greater impact on non-residential students than on residential students. It is not clear why this is the case.

The second factor identified is 'sociability' and comprised the following three statements:

Factor 2: Sociability

I am a little anxious about going to the Summer School. *(negative statement)*

I think there will be people like me at the Summer School to make friends with.

I think the Summer School will be enjoyable.

(N.B. Only pre-course statements appear here)

There was a highly significant positive change ($p<.001$) for the whole sample in mean factor score pre- to post-course on their sociability as a result of attending the Summer Schools (i.e. a highly significant increase in students' sociability). The Summer Schools had a greater impact on students whose mother/guardian had an occupation classified as social class I, II or IIIN than on students whose mother/guardian had an occupation classified as social class IIIM, IV or V. The same picture was evident in relation to the social class of father/guardian. This may be because students from higher social classes are more adept socially in new situations than are students from lower social classes. The Summer Schools also had a significantly greater impact on Asian students than on black students for this factor. This may be because there were relatively few black students attending Summer Schools in comparison with Asian students, and so black students, in general, may have felt more isolated.

5.2.8 Open-ended Sections of the Questionnaires

Students were asked in the pre-course questionnaire what they were looking forward to most at the Summer School, while in the post-course questionnaire they were asked what they had enjoyed the most and also how the Summer School could be improved. For each question, some students commented on more than one aspect of the Summer School. All comments were coded.

The five most frequent responses to what students were looking forward to most at the Summer School are shown in Table 5.6.

Table 5.6 **The five most frequent responses to what students were looking forward to most at the Summer School**

Looking Forward to Most	No. of Students Who Mentioned This Aspect	% of Students Who Mentioned This Aspect
Meeting new people/Making new friends	427	55%
Finding out about university life (in general)	329	42%
Learning new skills/Broadening knowledge	232	30%
Finding out about/experiencing a university course	146	19%
Particular aspect of the Summer School course mentioned (e.g. pharmacy lecture)	111	14%

The five most frequent responses to what students enjoyed most at the Summer School are shown in Table 5.7.

Table 5.7 **The five most frequent responses to what students had enjoyed the most at the Summer School**

Enjoyed the Most	No. of Students Who Mentioned This Aspect	% of Students Who Mentioned This Aspect
Meeting new people/Making new friends	366	47%
Particular aspect of the Summer School course mentioned (e.g. pharmacy lecture)	291	37%
Particular social activity	122	16%
Learning new skills/Broadening knowledge	120	15%
Working as part of a team	83	11%

The five most frequent responses to how the Summer School could be improved in the opinion of students are shown in Table 5.8.

Table 5.8 **The five most frequent responses to how the Summer School could be improved in the opinion of students**

How the Summer School Could Be Improved	No. of Students Who Mentioned This Aspect	% of Students Who Mentioned This Aspect
More social/free time	112	14%
Improvements to food/drink	93	12%
Improve the lectures (e.g. make shorter, less boring, allow audience participation)	89	11%
Make the Summer School longer	79	10%
More realistic length to the working day (e.g. later start/earlier finish)	74	9%

In summary, the results of the questionnaires showed that the Summer Schools were very successful from the students' point of view. As one student wrote in her post-course questionnaire:

'I think the summer school provided me with an excellent opportunity to see what university life would be like. Letting us live in houses, see the Union, and experience lecture style activities made the week really enjoyable. Also the student helpers were really friendly and treated us as equals which meant we all had a good time.'

Chapter 6 Recommendations for Good Practice

The Summer Schools that were held at 54 HEIs in 2000 catered for vastly different numbers of students, included residential and non-residential courses and collectively covered an extensive range of curriculum content, all with the central aim of encouraging students to apply for higher education or to consider a wider range of HEIs. Good practice was abundant throughout the Summer Schools, though certain aspects of some Summer Schools required further development. The NFER research team makes the following recommendations for HEIs participating in the scheme for 2001 and subsequent years, and for HEFCE, LEAs and schools in supporting HEIs in this area. Recommendation 14 is concerned with part of the collective role of Gifted & Talented Coordinators in schools, while Recommendation 15 is concerned with further external monitoring and evaluation to be considered by HEFCE.

1. Hold the Summer School at an appropriate time

As the Summer Schools in 2001 are exclusively for Year 11 students, it is imperative that they are held on dates that do not clash with the GCSE examinations timetable. The second half of July is a good time to hold a Summer School. This gives students sufficient time to recover from examinations and will be before many take up other commitments, such as holiday jobs. Summer Schools should also avoid the period in which results are published by examination boards, usually the second half of August.

2. Plan courses so that each day is neither too long nor too intensive

Many students were of the opinion that the Summer School course was not long enough. (In many respects this is a positive response as it is better that students regard a course as too short than too long.) However, there may be benefits from providing a course that goes slightly beyond the minimum number of five contact days. This would help address the problem of students finding the days too intensive and tiring, and allow for students to be eased into the academic programme by first involving them in 'ice-breaking' activities. A possible extended course could be one that begins on Sunday afternoon and finishes the following Saturday lunchtime (i.e. six contact days). This would enable there to be a slightly less intensive programme each day but still cover the same amount of content overall. The Sunday afternoon could be devoted to 'ice-breaking' activities, while the Saturday morning might be productively spent on students making final presentations of their work (**see Recommendation 8**) which more parents/carers would have the opportunity to attend.

3. Use HEI sites that are closely grouped

Consideration needs to be given to the HEI sites used by the Summer School. Several HEIs with large campuses experienced difficulties with students and staff spending considerable amounts of time each day moving from one location to another for sessions. It is better to make use of a limited number of sites within a relatively small area, ideally with a central base for students to congregate at specified times.

4. Prepare courses with the Summer School leader having a clear overview

The work of the Summer School leader is crucial in disseminating details of the scheme throughout the institution, establishing principles for the conduct of the Summer School, setting out procedures by which courses are to be prepared, and recruiting personnel, so as to lead to successful outcomes. For some Summer Schools in 2000, departmental autonomy was such that, while courses provided a variety of activity for students, there was a lack of complementarity between the activities. Here, it is necessary for the Summer School leader to have a greater overview of how courses are being prepared. Also, the Summer School leader should monitor staff selection procedures to ensure that those recruited are able to fulfil the requirements of the scheme. A greater lead-in period to Summer Schools in 2001 and subsequent years will be helpful in this respect.

5. Induct teaching staff into key aspects of the Summer School

In order that the academic content of sessions is appropriately pitched for the age and interests of the students, and that the overall programme has coherency, it is recommended that teaching staff receive induction covering such aspects as the course objectives, how existing material may be appropriately adapted, and familiarisation with the various course components. Summer Schools in 2000 had less impact than intended when teaching staff delivered material that did not fit into the programme in any meaningful way or had little or no relevance to the students.

6. Recruit and train the institution's students to work as mentors

Summer Schools in 2000 recruited their own students to work as student mentors, and this proved highly successful. Student mentors performed a valuable pastoral role and also supported Summer School students on the academic programme. Many Summer Schools operated a system with a student mentor having responsibility for a small group of students throughout the entire course. Typically, student mentors received thorough training for their role, and it is recommended that such training be continued.

7. Base each course around a general theme

Summer School courses should be seen as an opportunity to build on students' knowledge, understanding and interests within a general theme, or for specialist courses, such as those in art, music or dance, to do intensive work in a very specific area. A thematic linking of activity will give a course a greater coherency and will provide students with an increased sense of the Summer School being a meaningful experience. Suitable themes may be ones that correspond obviously to the aims of the HE Summer Schools scheme, such as *'professional skills for the 21st century'* or ones that indicate a particular topic, such as *'the climate - are we in control?'*. A general theme may still cover a range of subjects, as in this latter example where aspects of physical sciences, sociology, media studies, political studies and even psychology could be incorporated. Reference should be made to any planned theme in the course description to appear in the prospectus to be used by schools and potential students.

8. Include group work leading to final presentations

Summer Schools which included group work activities that led to a final presentation to an invited audience were particularly effective at motivating students, promoting cooperative work, and concluding the course on a high note. Such an approach within the academic programme provides students with a clear, specific goal. It also gives teaching staff an indication of expected learning outcomes, likely to be helpful in the preparation of sessions and activities.

9. Set up strategies to ensure good levels of student attendance and retention

A major problem for many Summer Schools was that first day attendance was much lower than expected. Also, some non-residential Summer Schools experienced a significant decline in student numbers during the course. To address these problems, HEIs should set up procedures by which students are contacted in the period leading up to the start of the Summer School to confirm their attendance, to supply them with any relevant information (travel arrangements, etc.), and generally to reassure them about any concerns they may have. If possible, contacts by telephone are preferable to those by letter. A few Summer Schools working with local schools held pre-course evenings for students and their parents, which led to excellent attendance. Some students may feel homesick and wish to return home, so it is a good idea to identify this possibility early and provide support and encouragement for them to continue on the course. While 100 per cent attendance is expected, it may be worth considering giving every student a gift on the final day for achieving this, such as a book token or computer software, and publicising that this is to happen.

10. Provide choice for students for visits to employers

For visits to employers as part of the graduate employment and employability programme, it is advantageous to give students a degree of choice as to which employer(s) to visit. Where students' interests relate to the business of the employer, this is likely to lead to the greatest impact. It may be possible to involve several employers covering a range of industries, commercial businesses and public services from which students make their choices. Employers themselves will prefer to host sessions for students who have made a positive decision in this regard. For Summer Schools with large numbers of students, it may be better from a practical point of view to hold these sessions at the institution, with employers and recent graduates who are beginning their careers invited to talk to groups of students.

11. Involve recent graduates to contribute to sessions about employment

Summer School students can benefit from a vision as to what higher education may lead to for them. A fruitful way of creating this vision is to involve recent graduates from the institution who are in the first few years of work. There may be such people at local companies invited to provide graduate employment and employability-related sessions, who may be earmarked to make a direct contribution, such as by talking with Summer School students and answering their questions. Or a number of recent graduates, who may be contacted through the institution's alumni association, may be invited to the Summer School to deliver a session covering their experiences of higher education and subsequent employment. Ideally, there should be a good match between the background characteristics of the recent graduates and the Summer School students.

12. Monitor progress, evaluate outcomes and provide feedback

Summer Schools should use formal methods of monitoring and evaluation, such as student questionnaires or logbooks, in order to determine the impact of particular sessions on students and the level of success overall. Information gained from such instruments should be included in an evaluation report to be sent to participating schools. Some Summer Schools, for instance those making specialist provision, may find it worthwhile recording performances or presentations made by students on the final day, and sending each school a copy of the recording. As mentioned in **Recommendation 13**, a website is one means by which Summer School outcomes may be disseminated to schools and LEAs.

13. Set up a Summer School website

Each HEI should set up a Summer School website in order to stimulate interest among enrolled students and others leading up to the start of the Summer School, and afterwards to refresh students' memories of the experience and to provide feedback. The website could contain information such as the content, facilities, teaching and learning approaches and social/recreational events. On completion of the Summer School, the website could be updated to include general outcomes, quotes from students and providers, and photographs of students participating in activities. There may be advantages in including findings from any internal evaluation conducted of the Summer School, such as those obtained from student questionnaires, which could serve as feedback to schools and LEAs.

14. *For Gifted & Talented Coordinators in schools* – Ensure a balanced group of students overall

There was an imbalance between the numbers of males and females attending the Summer Schools in 2000, with roughly two-thirds of the students being female and one-third male. In targeting students to enrol for future Summer School courses, consideration needs to be given to persuading male students who meet the specified criteria, but are hesitant about attending, so as to ensure a more equal balance. Moreover, Gifted & Talented Coordinators in schools have an important role in ensuring that students apply for appropriate courses and that places are not wasted on those for whom the experience would be of little benefit.

15. For consideration by HEFCE – Commission external monitoring and evaluation for 2001

The HE Summer Schools scheme is being expanded for 2001, in line with the expansion in the Excellence in Cities initiative, and will continue in 2002 and 2003. As such, HEIs new to the scheme will be hosting their first HE Summer School in 2001. From this time, the scheme will be targeted at Year 11 students only. For these reasons, it is recommended that external monitoring and evaluation of Summer Schools in 2001 is undertaken. A research programme that focuses mainly on HEIs new to the scheme is likely to provide useful information, which may be contrasted with information obtained from the evaluation of the scheme in 2000. However, a small number of institutions involved in 2000 should also be included in any future evaluation in order to determine how their Summer Schools had developed.

A 'quality assurance' exercise is not recommended for an initiative of this type. As well as being costly, largely as a result of the Summer Schools collectively covering such a wide range of content, it is also likely to be intrusive for staff and students with each Summer School operating only for a short duration. As such, it is recommended that any monitoring and evaluation programme takes a 'light touch' approach, entails an element of self-reporting from the institutions, and investigates the impact of courses on participating students.

Across the Summer Schools in 2000 there was an imbalance in the proportions of males and females attending (**see Recommendation 14**). A monitoring exercise should be conducted in 2001 to determine whether these proportions are more equal, and also to determine whether students are from the intended target group.

In the longer term, it would be very useful to know whether or not Summer School participants had decided to go on to higher education, and the reasons for this decision. From the scheme in 2000, the NFER has contact details of around 800 students from a total of 19 Summer Schools. It is recommended that some of the Year 11 students in this number are contacted in late summer 2002 after they have received their A-level (or equivalent) results. Through telephone interviews, information could be collected concerning students' HEI destinations, choices of course, perceived long-term impact of the Summer School and related matters.

Appendix 1

Higher Education Institutions Included In the 'Short Visits' Strand of the Evaluation

University of Birmingham

Imperial College of Science, Technology and Medicine

Keele University

Liverpool John Moores University

London Guildhall University

Queen Mary and Westfield College

Royal Academy of Music

Royal College of Music

South Bank University

Trinity & All Saints College

Newman College of Higher Education

University of Bristol

University of Durham

University of Oxford

University of Warwick

University of York

Appendix 2

Higher Education Institutions Included in the Questionnaire Strand of the Evaluation

Aston University

Goldsmiths College, University of London

Liverpool Hope University College

School of Oriental & African Studies

Sheffield Hallam University

The Central School of Speech & Drama

Chelsea College of Art & Design, London Institute

University Marine Biological Station Millport
(London Senate)

University of Bradford

University of Central England in Birmingham

University of Exeter

University of Manchester

University of Newcastle upon Tyne

University of Nottingham

University of Sheffield

University of Southampton

University of Surrey Roehampton

University of Sussex

University of Westminster

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